

SEQUENCE LISTING

SEQUENCE LISTING		<u>\$</u>		
<110> Werner S	Seeger PADEMARK	/	•	
<120> Novel Ch <130> 607927-0 <140> US/10/58 <141> 2006-06-	33,785	en Activators an	d Their Phar	rmaceutical Use
<160> 26				
<210> 1 <211> 1143 <212> DNA <213> Homo sap	piens			
<220> <221> CDS <222> (1) <223> Coding s	(1143) sequence of the su	urfactant protei	n B precurso	or
<400> 1				
atg gct gag tca Met Ala Glu Ser 1	cac ctg ctg cag t His Leu Leu Gln T 5	tgg ctg ctg ctg Frp Leu Leu Leu 10	ctg ctg ccc Leu Leu Pro 15	acg 48 Thr
ctc tgt ggc cca Leu Cys Gly Pro 20	ggc act gct gcc t Gly Thr Ala Ala T	tgg acc acc tca Trp Thr Thr Ser 25	tcc ttg gcc Ser Leu Ala 30	tgt 96 Cys
gcc cag ggc cct Ala Gln Gly Pro 35	gag ttc tgg tgc c Glu Phe Trp Cys G 40	caa agc ctg gag Gln Ser Leu Glu	caa gca ttg Gln Ala Leu 45	cag 144 Gln
tgc aga gcc cta Cys Arg Ala Leu 50	ggg cat tgc cta c Gly His Cys Leu G 55	cag gaa gtc tgg Gln Glu Val Trp 60	gga cat gtg Gly His Val	gga 192 Gly
gcc gat gac cta Ala Asp Asp Leu 65	tgc caa gag tgt g Cys Gln Glu Cys G 70	gag gac atc gtc Glu Asp Ile Val 75	cac atc ctt His Ile Leu	aac 240 Asn 80
aag atg gcc aag Lys Met Ala Lys	gag gcc att ttc c Glu Ala Ile Phe G 85	cag gac acg atg Gln Asp Thr Met 90	agg aag ttc Arg Lys Phe 95	ctg 288 Leu
gag cag gag tgc Glu Gln Glu Cys 100	aac gtc ctc ccc t Asn Val Leu Pro L 1	ttg aag ctg ctc Leu Lys Leu Leu 105	atg ccc cag Met Pro Gln 110	tgc 336 Cys
aac caa gtg ctt Asn Gln Val Leu 115	gac gac tac ttc c Asp Asp Tyr Phe P 120	Pro Leu Val Ile .	gac tac ttc Asp Tyr Phe 125	cag 384 Gln
aac cag act gac Asn Gln Thr Asp 130	tca aac ggc atc t Ser Asn Gly Ile C 135	tgt atg cac ctg Cys Met His Leu 140	ggc ctg tgc Gly Leu Cys	aaa 432 Lys
tcc cgg cag cca	gag cca gag cag g	gag cca ggg atg	tca gac ccc	ctg 480

Ser 145	Arg	G1n	Pro	Glu	Pro 150	Glu	Gln	Glu	Pro	Gly 155	Met	Ser	Asp	Pro	Leu 160	
	aaa Lys															528
gtc Val	ctc Leu	cct Pro	gtg Val 180	ctg Leu	ccc Pro	ggg Gly	gcc Ala	ctc Leu 185	cag Gln	gcg Ala	agg Arg	cct Pro	ggg Gly 190	cct Pro	cac His	576
	cag Gln															624
tgg Trp	ctc Leu 210	tgc Cys	agg Arg	gct Ala	ctg Leu	atc Ile 215	aag Lys	cgg Arg	atc Ile	caa Gln	gcc Ala 220	atg Met	att Ile	ccc Pro	aag Lys	672
ggt Gly 225	gcg Ala	cta Leu	gct Ala	gtg Val	gca Ala 230	gtg Val	gcc Ala	cag Gln	gtg Val	tgc Cys 235	cgc Arg	gtg Val	gta Val	cct Pro	ctg Leu 240	720
gtg Val	gcg Ala	ggc Gly	ggc Gly	atc Ile 245	tgc Cys	cag Gln	tgc Cys	ctg Leu	gct Ala 250	gag Glu	cgc Arg	tac Tyr	tcc Ser	gtc Val 255	atc Ile	768
ctg Leu	ctc Leu	gac Asp	acg Thr 260	ctg Leu	ctg Leu	ggc Gly	cgc Arg	atg Met 265	ctg Leu	ccc Pro	cag Gln	ctg Leu	gtc Val 270	tgc Cys	cgc Arg	816
ctc Leu	gtc Val	ctc Leu 275	cgg Arg	tgc Cys	tcc Ser	atg Met	gat Asp 280	gac Asp	agc Ser	gct Ala	ggc Gly	cca Pro 285	agg Arg	tcg Ser	ccg Pro	864
aca Thr	gga Gly 290	gaa Glu	tgg Trp	ctg Leu	ccg Pro	cga Arg 295	gac Asp	tct Ser	gag Glu	tgc Cys	cac His 300	ctc Leu	tgc Cys	atg Met	tcc Ser	912
gtg Val 305	acc Thr	acc Thr	cag Gln	gcc Ala	ggg Gly 310	aac Asn	agc Ser	agc Ser	gag Glu	cag Gln 315	gcc Ala	ata Ile	cca Pro	cag Gln	gca Ala 320	960
	ctc Leu															1008
caa Gln	ttt Phe	gtg Val	gag Glu 340	cag Gln	cac His	acg Thr	ccc Pro	cag Gln 345	ctg Leu	ctg Leu	acc Thr	ctg Leu	gtg Val 350	ccc Pro	agg Arg	1056
ggc Gly	tgg Trp	gat Asp 355	gcc Ala	cac His	acc Thr	acc Thr	tgc Cys 360	cag Gln	gcc Ala	ctc Leu	ggg Gly	gtg Val 365	tgt Cys	ggg Gly	acc Thr	1104
atg Met	tcc Ser 370	agc Ser	cct Pro	ctc Leu	cag Gln	tgt Cys 375	atc Ile	cac His	agc Ser	ccc Pro	gac Asp 380	ctt Leu				1143

```
<210>
           837
<211>
<212>
           DNA
<213>
           Homo sapiens
<220>
<221>
<222>
           CDS
           (1) ... (837)
<223>
           Coding sequence of SP-B precursor lacking the C-terminal propeptide
<400>
atg gct gag tca cac ctg ctg cag tgg ctg ctg ctg ctg ccc acq
                                                                                                 48
Met Ala Glu Ser His Leu Leu Gln Trp Leu Leu Leu Leu Leu Pro Thr
ctc tgt ggc cca ggc act gct gcc tgg acc acc tca tcc ttg gcc tgt
Leu Cys Gly Pro Gly Thr Ala Ala Trp Thr Thr Ser Ser Leu Ala Cys
20 25 30
                                                                                                 96
gcc cag ggc cct gag ttc tgg tgc caa agc ctg gag caa gca ttg cag
Ala Gln Gly Pro Glu Phe Trp Cys Gln Ser Leu Glu Gln Ala Leu Gln
35 40 45
                                                                                                 144
tgc aga gcc cta ggg cat tgc cta cag gaa gtc tgg gga cat gtg gga
Cys Arg Ala Leu Gly His Cys Leu Gln Glu Val Trp Gly His Val Gly
50 55 60
                                                                                                 192
gcc gat gac cta tgc caa gag tgt gag gac atc gtc cac atc ctt aac
Ala Asp Asp Leu Cys Gln Glu Cys Glu Asp Ile Val His Ile Leu Asn
65 70 75 80
                                                                                                 240
aag atg gcc aag gag gcc att ttc cag gac acg atg agg aag ttc ctg
                                                                                                 288
Lys Met Āla Lys Glū Āla Ile Phe Glī Āsp Thr Met Arg Lys Phe Leū
gag cag gag tgc aac gtc ctc ccc ttg aag ctg ctc atg ccc cag tgc
                                                                                                 336
Ğlü Gln Ğlü Cys Asn Val Leu Pro Leu Lys Leu Leu Met Pro Gln Cys
                100
aac caa gtg ctt gac gac tac ttc ccc ctg gtc atc gac tac ttc cag
                                                                                                 384
Asn Gln Val Leu Asp Asp Tyr Phe Pro Leu Val Ile Asp Tyr Phe Gln
           115
aac cag act gac tca aac ggc atc tgt atg cac ctg ggc ctg tgc aaa
Asn Gln Thr Asp Ser Asn Gly Ile Cys Met His Leu Gly Leu Cys Lys
130 135 140
                                                                                                 432
tcc cgg cag cca gag cca gag cag gag cca ggg atg tca gac ccc ctg
Ser Arg Gln Pro Glu Pro Glu Gln Glu Pro Gly Met Ser Asp Pro Leu
                                                                                                 480
ccc aaa cct ctg cgg gac cct ctg cca gac cct ctg ctg gac aag ctc
                                                                                                 528
Pro Lys Pro Leu Arg Asp Pro Leu Pro Asp Pro Leu Leu Asp Lys Leu
gtc ctc cct gtg ctg ccc ggg gcc ctc cag gcg agg cct ggg cct cac
                                                                                                 576
Val Leu Pro Val Leu Pro Gly Ala Leu Glň Ala Arg Pro Gly Pro His
                180
```

aca c Thr G	ag 31n	gat Asp 195	ctc Leu	tcc Ser	gag Glu	cag Gln	caa Gln 200	ttc Phe	ccc Pro	att Ile	cct Pro	ctc Leu 205	ccc Pro	tat Tyr	tgc Cys	624
tgg c Trp L	etc Leu 210	tgc Cys	agg Arg	gct Ala	ctg Leu	atc Ile 215	aag Lys	cgg Arg	atc Ile	caa Gln	gcc Ala 220	atg Met	att Ile	ccc Pro	aag Lys	672
ggt g Gly A 225	gcg Ala	cta Leu	gct Ala	gtg Val	gca Ala 230	gtg Val	gcc Ala	cag Gln	gtg Val	tgc Cys 235	cgc Arg	gtg Val	gta Val	cct Pro	ctg Leu 240	720
gtg g Val A	gcg Ala	ggc Gly	ggc Gly	atc Ile 245	tgc Cys	cag Gln	tgc Cys	ctg Leu	gct Ala 250	gag Glu	cgc Arg	tac Tyr	tcc Ser	gtc Val 255	atc Ile	768
ctg c Leu L	ctc Leu	gac Asp	acg Thr 260	ctg Leu	ctg Leu	ggc Gly	cgc Arg	atg Met 265	ctg Leu	ccc Pro	cag Gln	ctg Leu	gtc Val 270	tgc Cys	cgc Arg	816
ctc g Leu V	tc al	ctc Leu 275	cgg Arg	tgc Cys	tcc Ser	atg Met										837
<210><211><211><212><213>	•	3 237 DNA Homo	sap	oiens	5											
<220><221><222><223>	•		 ng s		7) ence	of t	the r	natur	re si	urfac	ctant	t pro	oteir	n B		
<400>	•	3														
ttc c Phe P 1	cc Pro	att Ile	cct Pro	ctc Leu 5	ccc Pro	tat Tyr	tgc Cys	tgg Trp	ctc Leu 10	tgc Cys	agg Arg	gct Ala	ctg Leu	atc Ile 15	aag Lys	48
cgg a Arg I	itc Te	caa Gln	gcc Ala 20	atg Met	att Ile	ccc Pro	aag Lys	ggt Gly 25	gcg Ala	cta Leu	gct Ala	gtg Val	gca Ala 30	gtg Val	gcc Ala	96
cag g Gln V	tg al	tgc Cys 35	cgc Arg	gtg Val	gta Val	cct Pro	ctg Leu 40	gtg Val	gcg Ala	ggc Gly	ggc Gly	atc Ile 45	tgc Cys	cag Gln	tgc Cys	144
ctg g Leu A	ict la 50	gag Glu	cgc Arg	tac Tyr	tcc Ser	gtc Val 55	atc Ile	ctg Leu	ctc Leu	gac Asp	acg Thr 60	ctg Leu	ctg Leu	ggc Gly	cgc Arg	192
atg c Met L 65	tg .eu	ccc Pro	cag Gln	ctg Leu	gtc Val 70	tgc Cys	cgc Arg	ctc Leu	gtc Val	ctc Leu 75	cgg Arg	tgc Cys	tcc Ser	atg Met		237
<210> <211>		4 1293	;													

<212> <213>	DNA Homo sa	piens											
<220> <221> <222> <223>	CDS (1) Coding		e of	the :	sing	1e−cl	hain	urol	kina	se-p	lasm [.]	inogen	activator
<400>	4												
atg aga Met Arg 1	gcc ctg Ala Leu	ctg gc Leu Al 5	g cgc a Arg	ctg Leu	ctt Leu	ctc Leu 10	tgc Cys	gtc Val	ctg Leu	gtc Val	gtg Val 15	agc Ser	48
	aaa ggc Lys Gly 20												96
tgt cta Cys Leu	aat gga Asn Gly 35	gga ac Gly Th	a tgt r Cys	gtg Val 40	tcc Ser	aac Asn	aag Lys	tac Tyr	ttc Phe 45	tcc Ser	aac Asn	att Ile	144
cac tgg His Trp 50	tgc aac Cys Asn	tgc cc Cys Pr	a aag o Lys 55	aaa Lys	ttc Phe	gga Gly	ggg Gly	cag Gln 60	cac His	tgt Cys	gaa Glu	ata Ile	192
gat aag Asp Lys 65	tca aaa Ser Lys	acc tg Thr Cy 7	c tat s Tyr 0	gag Glu	ggg Gly	aat Asn	ggt Gly 75	cac His	ttt Phe	tac Tyr	cga Arg	gga Gly 80	240
aag gcc Lys Ala	agc act Ser Thr	gac ac Asp Th 85	c atg r Met	ggc Gly	cgg Arg	ccc Pro 90	tgc Cys	ctg Leu	ccc Pro	tgg Trp	aac Asn 95	tct Ser	288
gcc act Ala Thr	gtc ctt Val Leu 100	cag ca Gln Gl	a acg n Thr	tac Tyr	cat His 105	gcc Ala	cac His	aga Arg	tct Ser	gat Asp 110	gct Ala	ctt Leu	336
cag ctg Gln Leu	ggc ctg Gly Leu 115	ggg aa Gly Ly	a cat s His	aat Asn 120	tac Tyr	tgc Cys	agg Arg	aac Asn	cca Pro 125	gac Asp	aac Asn	cgg Arg	384
agg cga Arg Arg 130	ccc tgg Pro Trp	tgc ta Cys Ty	t gtg r val 135	cag Gln	gtg Val	ggc Gly	cta Leu	aag Lys 140	ccg Pro	ctt Leu	gtc val	caa Gln	432
gag tgc Glu Cys 145	atg gtg Met Val	cat ga His As 15	D Cys	gca Ala	gat Asp	gga Gly	aaa Lys 155	aag Lys	ccc Pro	tcc Ser	tct Ser	cct Pro 160	480
cca gaa Pro Glu	gaa tta Glu Leu	aaa tt Lys Ph 165	t cag e Gln	tgt Cys	ggc Gly	caa Gln 170	aag Lys	act Thr	ctg Leu	agg Arg	ccc Pro 175	cgc Arg	528
ttt aag Phe Lys	att att Ile Ile 180	ggg gg Gly Gl	a gaa y Glu	ttc Phe	acc Thr 185	acc Thr	atc Ile	gag Glu	aac Asn	cag Gln 190	ccc Pro	tgg Trp	576
ttt gcg Phe Ala	gcc atc Ala Ile	tac ag Tyr Ar	g agg g Arg	cac His	cgg Arg	ggg Gly	ggc Gly	tct Ser	gtc Val	acc Thr	tac Tyr	gtg Val	624

		195					200					205				
tgt Cys	gga Gly 210	ggc Gly	agc Ser	ctc Leu	atc Ile	agc Ser 215	cct Pro	tgc Cys	tgg Trp	gtg Val	atc Ile 220	agc Ser	gcc Ala	aca Thr	cac His	672
tgc Cys 225	ttc Phe	att Ile	gat Asp	tac Tyr	cca Pro 230	aag Lys	aag Lys	gag Glu	gac Asp	tac Tyr 235	atc Ile	gtc Val	tac Tyr	ctg Leu	ggt Gly 240	720
cgc Arg	tca Ser	agg Arg	ctt Leu	aac Asn 245	tcc Ser	aac Asn	acg Thr	caa Gln	ggg Gly 250	gag Glu	atg Met	aag Lys	ttt Phe	gag Glu 255	gtg Val	768
gaa Glu	aac Asn	ctc Leu	atc Ile 260	cta Leu	cac His	aag Lys	gac Asp	tac Tyr 265	agc Ser	gct Ala	gac Asp	acg Thr	ctt Leu 270	gct Ala	cac His	816
cac His	aac Asn	gac Asp 275	att Ile	gcc Ala	ttg Leu	ctg Leu	aag Lys 280	atc Ile	cgt Arg	tcc Ser	aag Lys	gag Glu 285	ggc Gly	agg Arg	tgt Cys	864
gcg Ala	cag Gln 290	cca Pro	tcc Ser	cgg Arg	act Thr	ata Ile 295	cag Gln	acc Thr	atc Ile	tgc Cys	ctg Leu 300	ccc Pro	tcg Ser	atg Met	tat Tyr	912
aac Asn 305	gat Asp	ccc Pro	cag Gln	ttt Phe	ggc Gly 310	aca Thr	agc Ser	tgt Cys	gag Glu	atc Ile 315	act Thr	ggc Gly	ttt Phe	gga Gly	aaa Lys 320	960
gag Glu	aat Asn	tct Ser	acc Thr	gac Asp 325	tat Tyr	ctc Leu	tat Tyr	ccg Pro	gag Glu 330	cag Gln	ctg Leu	aaa Lys	atg Met	act Thr 335	gtt Val	1008
gtg Val	aag Lys	ctg Leu	att Ile 340	tcc Ser	cac His	cgg Arg	gag Glu	tgt Cys 345	cag Gln	cag Gln	ccc Pro	cac His	tac Tyr 350	tac Tyr	ggc Gly	1056
	gaa Glu															1104
aca Thr	gat Asp 370	tcc Ser	tgc Cys	cag Gln	gga Gly	gac Asp 375	tca Ser	ggg Gly	gga Gly	ccc Pro	ctc Leu 380	gtc Val	tgt Cys	tcc Ser	ctc Leu	1152
caa Gln 385	ggc Gly	cgc Arg	atg Met	act Thr	ttg Leu 390	act Thr	gga Gly	att Ile	gtg Val	agc Ser 395	tgg Trp	ggc Gly	cgt Arg	gga Gly	tgt Cys 400	1200
	ctg Leu															1248
ccc Pro	tgg Trp	atc Ile	cgc Arg 420	agt Ser	cac His	acc Thr	aag Lys	gaa Glu 425	gag Gln	aat Asn	ggc Gly	ctg Leu	gcc Ala 430	ctc Leu		1293

```
<210>
 <211>
             828
 <212>
             DNA
 <213>
             Homo sapiens
<220>
<221>
<222>
             CDS
              (1), \ldots, (828)
<223>
             Coding sequence of low mw two-chain urokinase-plasminogen activator
<400>
aag ccc tcc tct cct cca gaa gaa tta aaa ttt cag tgt ggc caa aag
                                                                                                                    48
Lys Pro Ser Ser Pro Pro Glu Glu Leu Lys Phe Gln Cys Gly Gln Lys
1 10 15
act ctg agg ccc cgc ttt aag att att ggg gga gaa ttc acc acc atc Thr Leu Arg Pro Arg Phe Lys Ile Ile Gly Gly Glu Phe Thr Thr Ile
                                                                                                                    96
gag aac cag ccc tgg ttt gcg gcc atc tac agg agg cac cgg ggg ggc
Glu Asn Gln Pro Trp Phe Ala Ala Ile Tyr Arg Arg His Arg Gly Gly
                                                                                                                    144
tct gtc acc tac gtg tgt gga ggc agc ctc atc agc cct tgc tgg gtg
Ser Val Thr Tyr Val Cys Gly Gly Ser Leu Ile Ser Pro Cys Trp Val
50 55 60
                                                                                                                    192
atc agc gcc aca cac tgc ttc att gat tac cca aag aag gag gac tac lle Ser Ala Thr His Cys Phe lle Asp Tyr Pro Lys Lys Glu Asp Tyr 65 70 75 80
                                                                                                                    240
atc gtc tac ctg ggt cgc tca agg ctt aac tcc aac acg caa ggg gag Ile Val Tyr Leu Gly Arg Ser Arg Leu Asn Ser Asn Thr Gln Gly Glu 85 90 95
                                                                                                                    288
atg aag ttt gag gtg gaa aac ctc atc cta cac aag gac tac agc gct
Met Lys Phe Glu Val Glu Asn Leu Ile Leu His Lys Asp Tyr Ser Ala
                                                                                                                    336
                    100
gac acg ctt gct cac cac aac gac att gcc ttg ctg aag atc cgt tcc
                                                                                                                    384
Asp Thr Leu Ala His His Asn Asp Ile Ala Leu Leu Lys Ile Arg Ser
                                                                                                                    432
aag gag ggc agg tgt gcg cag cca tcc cgg act ata cag acc atc tgc
Lys Glu Gly Arg Cys Ala Gln Pro Ser Arg Thr Ile Gln Thr Ile Cys
ctg ccc tcg atg tat aac gat ccc cag ttt ggc aca agc tgt gag atc
Leu Pro Ser Met Tyr Asn Asp Pro Gln Phe Gly Thr Ser Cys Glu Ile
145 150 155 160
                                                                                                                    480
act ggc ttt gga aaa gag aat tct acc gac tat ctc tat ccg gag cag Thr Gly Phe Gly Lys Glu Asn Ser Thr Asp Tyr Leu Tyr Pro Glu Gln 165 170 175
                                                                                                                    528
ctg aaa atg act gtt gtg aag ctg att tcc cac cgg gag tgt cag cag
Leu Lys Met Thr Val Val Lys Leu Ile Ser His Arg Glu Cys Gln Gln
180 185 190
                                                                                                                    576
```

```
ccc cac tac tac ggc tct gaa gtc acc acc aaa atg ctg tgt gct pro His Tyr Tyr Gly Ser Glu Val Thr Thr Lys Met Leu Cys Ala Ala
                                                                                                      624
                                        200
gac cca cag tgg aaa aca gat tcc tgc cag gga gac tca ggg gga ccc
Asp Pro Gln Trp Lys Thr Asp Ser Cys Gln Gly Asp Ser Gly Gly Pro
210 215 220
                                                                                                      672
ctc gtc tgt tcc ctc caa ggc cgc atg act ttg act gga att gtg agc
Leu Val Cys Ser Leu Gln Gly Arg Met Thr Leu Thr Gly Ile Val Ser
                                                                                                      720
tgg ggc cgt gga tgt gcc ctg aag gac aag cca ggc gtc tac acg aga
                                                                                                      768
Trp Gly Arg Gly Cys Ala Leu Lys Asp Lys Pro Gly Val Tyr Thr Arg
245 250 255
gtc tca cac ttc tta ccc tgg atc cgc agt cac acc aag gaa gag aat
Val Ser His Phe Leu Pro Trp Ile Arg Ser His Thr Lys Glu Gln Asn
                                                                                                      816
ggc ctg gcc ctc
                                                                                                      828
Gly Leu Ala Leu
           275
<210>
           6
           1671
<211>
<212>
           DNA
<213>
           Artificial Sequence
<220>
<221>
<222>
           (1) \dots (837)
<223>
           Coding sequence of human SP-B precursor lacking the C-terminal
           propeptide
<220>
<221>
<222>
           (844) \dots (1671)
<223>
           Coding sequence of low mw two-chain urokinase-plasminogen activator
<400>
           6
                                                                                                      48
atg gct gag tca cac ctg ctg cag tgg ctg ctg ctg ctg ccc acg
Met Ala Glu Ser His Leu Leu Gln Trp Leu Leu Leu Leu Pro Thr
ctc tgt ggc cca ggc act gct gcc tgg acc acc tca tcc ttg gcc tgt Leu Cys Gly Pro Gly Thr Ala Ala Trp Thr Thr Ser Ser Leu Ala Cys 20 25 30
                                                                                                      96
gcc cag ggc cct gag ttc tgg tgc caa agc ctg gag caa gca ttg cag
                                                                                                      144
Ala Gln Gly Pro Glu Phe Trp Cys Gln Ser Leu Glu Gln Ala Leu Gln
35
tgc aga gcc cta ggg cat tgc cta cag gaa gtc tgg gga cat gtg gga
Cys Arg Ala Leu Gly His Cys Leu Gln Glu Val Trp Gly His Val Gly
50 55 60
                                                                                                     192
```

gcc Ala 65	gat Asp	gac Asp	cta Leu	tgc Cys	caa Gln 70	gag Glu	tgt Cys	gag Glu	gac Asp	atc Ile 75	gtc Val	cac His	atc Ile	ctt Leu	aac Asn 80	240
aag Lys	atg Met	gcc Ala	aag Lys	gag Glu 85	gcc Ala	att Ile	ttc Phe	cag Gln	gac Asp 90	acg Thr	atg Met	agg Arg	aag Lys	ttc Phe 95	ctg Leu	288
gag Glu	cag Gln	gag Glu	tgc Cys 100	aac Asn	gtc Val	ctc Leu	ccc Pro	ttg Leu 105	aag Lys	ctg Leu	ctc Leu	atg Met	ccc Pro 110	cag Gln	tgc Cys	336
aac Asn	caa Gln	gtg Val 115	ctt Leu	gac Asp	gac Asp	tac Tyr	ttc Phe 120	ccc Pro	ctg Leu	gtc Val	atc Ile	gac Asp 125	tac Tyr	ttc Phe	cag Gln	384
aac Asn	cag Gln 130	act Thr	gac Asp	tca Ser	aac Asn	ggc Gly 135	atc Ile	tgt Cys	atg Met	cac His	ctg Leu 140	ggc Gly	ctg Leu	tgc Cys	aaa Lys	432
tcc Ser 145	cgg Arg	cag Gln	cca Pro	gag Glu	cca Pro 150	gag Glu	cag Gln	gag Glu	cca Pro	ggg Gly 155	atg Met	tca Ser	gac Asp	ccc Pro	ctg Leu 160	480
ccc Pro	aaa Lys	cct Pro	ctg Leu	cgg Arg 165	gac Asp	cct Pro	ctg Leu	cca Pro	gac Asp 170	cct Pro	ctg Leu	ctg Leu	gac Asp	aag Lys 175	ctc Leu	528
gtc Val	ctc Leu	cct Pro	gtg Val 180	ctg Leu	ccc Pro	ggg Gly	gcc Ala	ctc Leu 185	cag Gln	gcg Ala	agg Arg	cct Pro	ggg Gly 190	cct Pro	cac ніs	576
aca Thr	cag Gln	gat Asp 195	ctc Leu	tcc Ser	gag Glu	cag Gln	caa Gln 200	ttc Phe	ccc Pro	att Ile	cct Pro	ctc Leu 205	ccc Pro	tat Tyr	tgc Cys	624
						atc Ile 215										672
ggt Gly 225	gcg Ala	cta Leu	gct Ala	gtg Val	gca Ala 230	gtg Val	gcc Ala	cag Gln	gtg Val	tgc Cys 235	cgc Arg	gtg Val	gta Val	cct Pro	ctg Leu 240	720
gtg Val	gcg Ala	ggc Gly	ggc Gly	atc Ile 245	tgc Cys	cag Gln	tgc Cys	ctg Leu	gct Ala 250	gag Glu	cgc Arg	tac Tyr	tcc Ser	gtc Val 255	atc Ile	768
ctg Leu	ctc Leu	gac Asp	acg Thr 260	ctg Leu	ctg Leu	ggc Gly	cgc Arg	atg Met 265	ctg Leu	ccc Pro	cag Gln	ctg Leu	gtc Val 270	tgc Cys	cgc Arg	816
ctc Leu	gtc Val	ctc Leu 275	cgg Arg	tgc Cys	tcc Ser	atg Met	aag Lys 280	ctt Leu	aag Lys	ccc Pro	tcc Ser	tct Ser 285	cct Pro	cca Pro	gaa Glu	864
gaa Glu	tta Leu 290	aaa Lys	ttt Phe	cag Gln	tgt Cys	ggc Gly 295	caa Gln	aag Lys	act Thr	ctg Leu	agg Arg 300	ccc Pro	cgc Arg	ttt Phe	aag Lys	912

att Ile 305	att Ile	ggg Gly	gga Gly	gaa Glu	ttc Phe 310	acc Thr	acc Thr	atc Ile	gag Glu	aac Asn 315	cag Gln	ccc Pro	tgg Trp	ttt Phe	gcg Ala 320	960
gcc Ala	atc Ile	tac Tyr	agg Arg	agg Arg 325	cac His	cgg Arg	ggg Gly	ggc Gly	tct Ser 330	gtc Val	acc Thr	tac Tyr	gtg Val	tgt Cys 335	gga Gly	1008
ggc Gly	agc Ser	ctc Leu	atc Ile 340	agc Ser	cct Pro	tgc Cys	tgg Trp	gtg Val 345	atc Ile	agc Ser	gcc Ala	aca Thr	cac His 350	tgc Cys	ttc Phe	1056
att Ile	gat Asp	tac Tyr 355	cca Pro	aag Lys	aag Lys	gag Glu	gac Asp 360	tac Tyr	atc Ile	gtc Val	tac Tyr	ctg Leu 365	ggt Gly	cgc Arg	tca Ser	1104
agg Arg	ctt Leu 370	aac Asn	tcc Ser	aac Asn	acg Thr	caa Gln 375	ggg Gly	gag Glu	atg Met	aag Lys	ttt Phe 380	gag Glu	gtg Val	gaa Glu	aac Asn	1152
ctc Leu 385	atc Ile	cta Leu	cac His	aag Lys	gac Asp 390	tac Tyr	agc Ser	gct Ala	gac Asp	acg Thr 395	ctt Leu	gct Ala	cac His	cac His	aac Asn 400	1200
gac Asp	att Ile	gcc Ala	ttg Leu	ctg Leu 405	aag Lys	atc Ile	cgt Arg	tcc Ser	aag Lys 410	gag Glu	ggc Gly	agg Arg	tgt Cys	gcg Ala 415	cag Gln	1248
cca Pro	tcc Ser	cgg Arg	act Thr 420	ata Ile	cag Gln	acc Thr	atc Ile	tgc Cys 425	ctg Leu	ccc Pro	tcg Ser	atg Met	tat Tyr 430	aac Asn	gat Asp	1296
ccc Pro	cag Gln	ttt Phe 435	ggc Gly	aca Thr	agc Ser	tgt Cys	gag Glu 440	atc Ile	act Thr	ggc Gly	ttt Phe	gga Gly 445	aaa Lys	gag Glu	aat Asn	1344
tct Ser	acc Thr 450	gac Asp	tat Tyr	ctc Leu	tat Tyr	ccg Pro 455	gag Glu	cag Gln	ctg Leu	aaa Lys	atg Met 460	act Thr	gtt Val	gtg Val	aag Lys	1392
ctg Leu 465	att Ile	tcc Ser	cac His	cgg Arg	gag Glu 470	tgt Cys	cag Gln	cag Gln	ccc Pro	cac His 475	tac Tyr	tac Tyr	ggc Gly	tct Ser	gaa Glu 480	1440
gtc Val	acc Thr	acc Thr	aaa Lys	atg Met 485	ctg Leu	tgt Cys	gct Ala	gct Ala	gac Asp 490	cca Pro	cag Gln	tgg Trp	aaa Lys	aca Thr 495	gat Asp	1488
tcc Ser	tgc Cys	cag Gln	gga Gly 500	gac Asp	tca Ser	ggg Gly	gga Gly	ccc Pro 505	ctc Leu	gtc Val	tgt Cys	tcc Ser	ctc Leu 510	caa Gln	ggc Gly	1536
cgc Arg	atg Met	act Thr 515	ttg Leu	act Thr	gga Gly	att Ile	gtg Val 520	agc Ser	tgg Trp	ggc Gly	cgt Arg	gga Gly 525	tgt Cys	gcc Ala	ctg Leu	1584
aag Lys	gac Asp 530	aag Lys	cca Pro	ggc Gly	gtc Val	tac Tyr 535	acg Thr	aga Arg	gtc val	tca Ser	cac His 540	ttc Phe	tta Leu	ccc Pro	tgg Trp	1632

atc Ile 545	cgc Arg	agt Ser	cac His	acc Thr	aag Lys 550	gaa Glu	gag Gln	aat Asn	ggc Gly	ctg Leu 555	gcc Ala	ctc Leu				1671
<210 <210 <210 <210	l> 2>	7 1674 DNA Art		ial s	Seque	ence										
<220 <221 <221 <221	l> 2>	CDS (1) Cod- prop		(83) seque		of I	numar	n SP·	-в р	recui	^sor	lacl	king	the	C-termina	1]
<220 <221 <221 <221	l> 2>			(: seque			low r	nw tv	vo-cl	nain	urol	cina:	se-p	lasm [.]	inogen act	ivator
<400)>	7														
atg Met 1	gct Ala	gag Glu	tca Ser	cac His 5	ctg Leu	ctg Leu	cag Gln	tgg Trp	ctg Leu 10	ctg Leu	ctg Leu	ctg Leu	ctg Leu	ccc Pro 15	acg Thr	48
ctc Leu	tgt Cys	ggc Gly	cca Pro 20	ggc Gly	act Thr	gct Ala	gcc Ala	tgg Trp 25	acc Thr	acc Thr	tca Ser	tcc Ser	ttg Leu 30	gcc Ala	tgt Cys	96
gcc Ala	cag Gln	ggc Gly 35	cct Pro	gag Glu	ttc Phe	tgg Trp	tgc Cys 40	caa Gln	agc Ser	ctg Leu	gag Glu	caa Gln 45	gca Ala	ttg Leu	cag Gln	144
tgc Cys	aga Arg 50	gcc Ala	cta Leu	ggg Gly	cat His	tgc Cys 55	cta Leu	cag Gln	gaa Glu	gtc Val	tgg Trp 60	gga Gly	cat His	gtg val	gga Gly	192
gcc Ala 65	gat Asp	gac Asp	cta Leu	tgc Cys	caa Gln 70	gag Glu	tgt Cys	gag Glu	gac Asp	atc Ile 75	gtc Val	cac His	atc Ile	ctt Leu	aac Asn 80	240
aag Lys	atg Met	gcc Ala	aag Lys	gag Glu 85	gcc Ala	att Ile	ttc Phe	cag Gln	gac Asp 90	acg Thr	atg Met	agg Arg	aag Lys	ttc Phe 95	ctg Leu	288
gag Glu	cag Gln	gag Glu	tgc Cys 100	aac Asn	gtc Val	ctc Leu	ccc Pro	ttg Leu 105	aag Lys	ctg Leu	ctc Leu	atg Met	ccc Pro 110	cag Gln	tgc Cys	336
				gac Asp												384
				tca Ser												432
tcc	cgg	cag	cca	gag	cca	gag	cag	gag	cca	ggg	atg	tca	gac	ссс	ctg	480

Ser 145	Arg	Gln	Pro	Glu	Pro 150	Glu	Gln	Glu	Pro	Gly 155	Met	Ser	Asp	Pro	Leu 160	
ccc Pro	aaa Lys	cct Pro	ctg Leu	cgg Arg 165	gac Asp	cct Pro	ctg Leu	cca Pro	gac Asp 170	cct Pro	ctg Leu	ctg Leu	gac Asp	aag Lys 175	ctc Leu	528
gtc Val	ctc Leu	cct Pro	gtg Val 180	ctg Leu	ccc Pro	ggg Gly	gcc Ala	ctc Leu 185	cag Gln	gcg Ala	agg Arg	cct Pro	ggg Gly 190	cct Pro	cac His	576
aca Thr	cag Gln	gat Asp 195	ctc Leu	tcc Ser	gag Glu	cag Gln	caa Gln 200	ttc Phe	ccc Pro	att Ile	Pro	ctc Leu 205	ccc Pro	tat Tyr	tgc Cys	624
tgg Trp	ctc Leu 210	tgc Cys	agg Arg	gct Ala	ctg Leu	atc Ile 215	aag Lys	cgg Arg	atc Ile	caa Gln	gcc Ala 220	atg Met	att Ile	ccc Pro	aag Lys	672
ggt Gly 225	gcg Ala	cta Leu	gct Ala	gtg val	gca Ala 230	gtg val	gcc Ala	cag Gln	gtg Val	tgc Cys 235	cgc Arg	gtg Val	gta Val	cct Pro	ctg Leu 240	720
gtg Val	gcg Ala	ggc Gly	ggc Gly	atc Ile 245	tgc Cys	cag Gln	tgc Cys	ctg Leu	gct Ala 250	gag Glu	cgc Arg	tac Tyr	tcc Ser	gtc Val 255	atc Ile	768
ctg Leu	ctc Leu	gac Asp	acg Thr 260	ctg Leu	ctg Leu	ggc Gly	cgc Arg	atg Met 265	ctg Leu	ccc Pro	cag Gln	ctg Leu	gtc Val 270	tgc Cys	cgc Arg	816
ctc Leu	gtc Val	ctc Leu 275	cgg Arg	tgc Cys	tcc Ser	atg Met	cag Gln 280	ata Ile	tct Ser	aag Lys	ccc Pro	tcc Ser 285	tct Ser	cct Pro	cca Pro	864
gaa Glu	gaa Glu 290	tta Leu	aaa Lys	ttt Phe	cag Gln	tgt Cys 295	ggc Gly	caa Gln	aag Lys	act Thr	ctg Leu 300	agg Arg	ccc Pro	cgc Arg	ttt Phe	912
aag Lys 305	att Ile	att Ile	ggg Gly	gga Gly	gaa Glu 310	ttc Phe	acc Thr	acc Thr	atc Ile	gag Glu 315	aac Asn	cag Gln	ccc Pro	tgg Trp	ttt Phe 320	960
gcg Ala	gcc Ala	atc Ile	tac Tyr	agg Arg 325	agg Arg	cac His	cgg Arg	ggg Gly	ggc Gly 330	tct Ser	gtc Val	acc Thr	tac Tyr	gtg Val 335	tgt Cys	1008
gga Gly	ggc Gly	agc Ser	ctc Leu 340	atc Ile	agc Ser	cct Pro	tgc Cys	tgg Trp 345	gtg Val	atc Ile	agc Ser	gcc Ala	aca Thr 350	cac His	tgc Cys	1056
ttc Phe	att Ile	gat Asp 355	tac Tyr	cca Pro	aag Lys	aag Lys	gag Glu 360	gac Asp	tac Tyr	atc Ile	gtc Val	tac Tyr 365	ctg Leu	ggt Gly	cgc Arg	1104
tca Ser	agg Arg 370	ctt Leu	aac Asn	tcc Ser	aac Asn	acg Thr 375	caa Gln	ggg Gly	gag Glu	atg Met	aag Lys 380	ttt Phe	gag Glu	gtg Val	gaa Glu	1152
aac	ctc	atc	cta	cac	aag	gac	tac	agc	gct	gac	acg	ctt	gct	cac	cac	1200

```
Asn Leu Ile Leu His Lys Asp Tyr Ser Ala Asp Thr Leu Ala His His
385
aac gac att gcc ttg ctg aag atc cgt tcc aag gag ggc agg tgt gcg
Asn Asp Ile Ala Leu Leu Lys Ile Arg Ser Lys Glu Gly Arg Cys Ala
                                                                                                             1248
                         405
cag cca tcc cgg act ata cag acc atc tgc ctg ccc tcg atg tat aac
                                                                                                             1296
Gln Pro Ser Arg Thr Ile Gln Thr Ile Cys Leu Pro Ser Met Tyr Asn
gat ccc cag ttt ggc aca agc tgt gag atc act ggc ttt gga aaa gag
Asp Pro Gln Phe Gly Thr Ser Cys Glu Ile Thr Gly Phe Gly Lys Glu
                                                                                                             1344
aat tot acc gac tat otc tat cog gag cag otg aaa atg act gtt gtg
                                                                                                             1392
Asn Ser Thr Asp Tyr Leu Tyr Pro Glu Gln Leu Lys Met Thr Val Val
      450
aag ctg att tcc cac cgg gag tgt cag cag ccc cac tac tac ggc tct
                                                                                                             1440
Lys Leu Ile Ser His Arg Glu Cys Gln Gln Pro His Tyr Tyr Gly Ser
465 470 475 480
gaa gtc acc acc aaa atg ctg tgt gct gcc cca cag tgg aaa aca
Glu Val Thr Thr Lys Met Leu Cys Ala Ala Asp Pro Gln Trp Lys Thr
485 490 495
                                                                                                             1488
gat tcc tgc cag gga gac tca ggg gga ccc ctc gtc tgt tcc ctc caa
Asp Ser Cys Gln Gly Asp Ser Gly Gly Pro Leu Val Cys Ser Leu Gln
500 510
                                                                                                             1536
ggc cgc atg act ttg act gga att gtg agc tgg ggc cgt gga tgt gcc Gly Arg Met Thr Leu Thr Gly Ile Val Ser Trp Gly Arg Gly Cys Ala 515 520 525
                                                                                                             1584
ctg aag gac aag cca ggc gtc tac acg aga gtc tca cac ttc tta ccc
Leu Lys Asp Lys Pro Gly Val Tyr Thr Arg Val Ser His Phe Leu Pro
                                                                                                             1632
                                                                   540
tgg atc cgc agt cac acc aag gaa gag aat ggc ctg gcc ctc
Trp Ile Arg Ser His Thr Lys Glu Gln Asn Gly Leu Ala Leu
                                                                                                             1674
<210>
            591
<211>
<212>
            DNA
<213>
            Homo sapiens
<220>
<221>
<222>
            (1) \dots (591)
<223>
            Coding sequence of the surfactant protein C precursor
<400>
atg gat gtg ggc agc aaa gag gtc ctg atg gag agc ccg ccg gac tac
Met Asp Val Gly Ser Lys Glu Val Leu Met Glu Ser Pro Pro Asp Tyr
1 15
                                                                                                             48
                                                        10
```

```
tcc gca gct ccc cgg ggc cga ttt ggc att ccc tgc tgc cca gtg cac
Ser Ala Ala Pro Arg Gly Arg Phe Gly Ile Pro Cys Cys Pro Val His
20 25 30
                                                                                                                     96
 ctg aaa cgc ctt ctt atc gtg gtg gtg gtg gtg gtc ctc atc gtc gtg
Leu Lys Arg Leu Leu Ile Val Val Val Val Val Leu Ile Val Val
                                                                                                                     144
 gtg att gtg gga gcc ctg ctc atg ggt ctc cac atg agc cag aaa cac
Val Ile Val Gly Ala Leu Leu Met Gly Leu His Met Ser Gln Lys His
50 55 60
                                                                                                                     192
 acg gag atg gtt ctg gag atg agc att ggg gcg ccg gaa gcc cag caa
Thr Glu Met Val Leu Glu Met Ser Ile Gly Ala Pro Glu Ala Gln Gln
                                                                                                                     240
  cgc ctg gcc ctg agt gag cac ctg gtt acc act gcc acc ttc tcc atc
                                                                                                                     288
 Arg Leu Ala Leu Ser Glu His Leu Val Thr Thr Ala Thr Phe Ser Ile
 ggc tcc act ggc ctc gtg gtg tat gac tac cag cag ctg ctg atc gcc
Gly Ser Thr Gly Leu Val Val Tyr Asp Tyr Gln Gln Leu Leu Ile Ala
                                                                                                                     336
                                                                                     110
 tac aag cca gcc cct ggc acc tgc tgc tac atc atg aag ata gct cca
Tyr Lys Pro Ala Pro Gly Thr Cys Cys Tyr Ile Met Lys Ile Ala Pro
                                                                                                                     384
 gag agc atc ccc agt ctt gag gct ctc act aga aaa gtc cac aac ttc Glu Ser Ile Pro Ser Leu Glu Ala Leu Thr Arg Lys Val His Asn Phe
                                                                                                                     432
        130
                                        135
 cag atg gaa tgc tct ctg cag gcc aag ccc gca gtg cct acg tct aag
                                                                                                                     480
 Glm Met Glu Cys Ser Leu Glm Ala Lys Pro Ala Val Pro Thr Ser Lys
 145
 ctg ggc cag gca gag ggg cga gat gca ggc tca gca ccc tcc gga ggg
Leu Gly Gln Ala Glu Gly Arg Asp Ala Gly Ser Ala Pro Ser Gly Gly
165 170 175
                                                                                                                     528
 gac ccg gcc ttc ctg ggc atg gcc gtg agc acc ctg tgt ggc gag gtg
Asp Pro Ala Phe Leu Gly Met Ala Val Ser Thr Leu Cys Gly Glu Val
                                                                                                                     576
 ccg ctc tac tac atc
                                                                                                                     591
 Pro Leu Tyr Tyr Ile
              195
· <210>
 <211>
<212>
              174
              DNA
 <213>
              Homo sapiens
 <220>
 <221>
              CDS
 <222>
              (1) \dots (174)
              Coding sequence of SP-C precursor lacking the C-terminal propeptide
 <400>
              9
```

```
atg gat gtg ggc agc aaa gag gtc ctg atg gag agc ccg ccg gac tac Met Asp Val Gly Ser Lys Glu Val Leu Met Glu Ser Pro Pro Asp Tyr 1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15
                                                                                                                         48
tcc gca gct ccc cgg ggc cga ttt ggc att ccc tgc tgc cca gtg cac
Ser Ala Ala Pro Arg Gly Arg Phe Gly Ile Pro Cys Cys Pro Val His
20 25 30
                                                                                                                         96
ctg aaa cgc ctt ctt atc gtg gtg gtg gtg gtc ctc atc gtc gtg
Leu Lys Arg Leu Leu Ile Val Val Val Val Val Leu Ile Val Val
35 40 45
                                                                                                                         144
gtg att gtg gga gcc ctg ctc atg ggt ctc
Val Ile Val Gly Ala Leu Leu Met Gly Leu
                                                                                                                         174
<210>
<211>
              105
<212>
             DNA
<213>
             Homo sapiens
<220>
<221>
             CDS
<222>
              (1) ... (105)
             Coding sequence of the mature surfactant protein C
<223>
<400>
ttt ggc att ccc tgc tgc cca gtg cac ctg aaa cgc ctt ctt atc gtg
Phe Gly Ile Pro Cys Cys Pro Val His Leu Lys Arg Leu Leu Ile Val
1 5 15
                                                                                                                        48
gtg gtg gtg gtc ctc atc gtc gtg gtg att gtg gga gcc ctg ctc
Val Val Val Val Leu Ile Val Val Val Ile Val Gly Ala Leu Leu
                                                                                                                        96
atg ggt ctc
Met Gly Leu
                                                                                                                        105
               35
<210>
             11
<211>
             1686
<212>
             DNA
<213>
             Homo sapiens
<220>
<221>
             CDS
<222>
              (1) ... (1686)
<223>
             Coding sequence of the tissue-plasminogen activator
<400>
             11
atg gat gca atg aag aga ggg ctc tgc tgt gtg ctg ctg ctg tgt gga
Met Asp Ala Met Lys Arg Gly Leu Cys Cys Val Leu Leu Cys Gly
1 5 10 15
                                                                                                                        48
gca gtc ttc gtt tcg ccc agc cag gaa atc cat gcc cga ttc aga aga
                                                                                                                        96
```

Ala	val	Phe	va1 20	Ser	Pro	Ser	Gln	Glu 25	Ile	His	Ala	Arg	Phe 30	Arg	Arg	
gga Gly	gcc Ala	aga Arg 35	tct Ser	tac Tyr	caa Gln	gtg val	atc Ile 40	tgc Cys	aga Arg	gat Asp	gaa Glu	aaa Lys 45	acg Thr	cag Gln	atg Met	144
ata Ile	tac Tyr 50	cag Gln	caa Gln	cat His	cag Gln	tca Ser 55	tgg Trp	ctg Leu	cgc Arg	cct Pro	gtg val 60	ctc Leu	aga Arg	agc Ser	aac Asn	192
cgg Arg 65	gtg Val	gaa Glu	tat Tyr	tgc Cys	tgg Trp 70	tgc Cys	aac Asn	agt Ser	ggc Gly	agg Arg 75	gca Ala	cag Gln	tgc Cys	cac His	tca Ser 80	240
gtg Val	cct Pro	gtc Val	aaa Lys	agt Ser 85	tgc Cys	agc Ser	gag Glu	cca Pro	agg Arg 90	tgt Cys	ttc Phe	aac Asn	ggg Gly	ggc Gly 95	acc Thr	288
tgc Cys	cag Gln	cag Gln	gcc Ala 100	ctg Leu	tac Tyr	ttc Phe	tca Ser	gat Asp 105	ttc Phe	gtg Val	tgc Cys	cag Gln	tgc Cys 110	ccc Pro	gaa Glu	336
gga Gly	ttt Phe	gct Ala 115	ggg Gly	aag Lys	tgc Cys	tgt Cys	gaa Glu 120	ata Ile	gat Asp	acc Thr	agg Arg	gcc Ala 125	acg Thr	tgc Cys	tac Tyr	384
gag Glu	gac Asp 130	cag Gln)	ggc Gly	atc Ile	agc Ser	tac Tyr 135	agg Arg	ggc Gly	acg Thr	tgg Trp	agc Ser 140	aca Thr	gcg Ala	gag Glu	agt Ser	432
ggc Gly 145	gcc Ala	gag Glu	tgc Cys	acc Thr	aac Asn 150	tgg Trp	aac Asn	agc Ser	agc Ser	gcg Ala 155	ttg Leu	gcc Ala	cag Gln	aag Lys	ccc Pro 160	480
tac Tyr	agc Ser	ggg Gly	cgg Arg	agg Arg 165	cca Pro	gat Asp	gcc Ala	atc Ile	agg Arg 170	ctg Leu	ggc Gly	ctg Leu	ggg Gly	aac Asn 175	cac His	528
aac Asn	tac Tyr	tgc Cys	aga Arg 180	aac Asn	cca Pro	gat Asp	cga Arg	gac Asp 185	tca Ser	aag Lys	ccc Pro	tgg Trp	tgc Cys 190	tac Tyr	gtc val	576
ttt Phe	aag Lys	gcg Ala 195	ggg Gly	aag Lys	tac Tyr	agc Ser	tca Ser 200	gag Glu	ttc Phe	tgc Cys	agc Ser	acc Thr 205	cct Pro	gcc Ala	tgc Cys	624
tct Ser	gag Glu 210	gga Gly	aac Asn	agt Ser	gac Asp	tgc Cys 215	tac Tyr	ttt Phe	ggg Gly	aat Asn	ggg G1y 220	tca Ser	gcc Ala	tac Tyr	cgt Arg	672
ggc Gly 225	acg Thr	cac His	agc Ser	ctc Leu	acc Thr 230	gag Glu	tcg Ser	ggt Gly	gcc Ala	tcc Ser 235	tgc Cys	ctc Leu	ccg Pro	tgg Trp	aat Asn 240	720
tcc Ser	atg Met	atc Ile	ctg Leu	ata Ile 245	ggc Gly	aag Lys	gtt Val	tac Tyr	aca Thr 250	gca Ala	cag Gln	aac Asn	ccc Pro	agt Ser 255	gcc Ala	768
cag	gca	ctg	ggc	ctg	ggc	aaa	cat	aat	tac	tgc	cgg	aat	cct	gat	ggg	816

Gln	Ala	Leu	G]y 260	Leu	Gly	Lys	ніѕ	Asn 265	Tyr	Cys	Arg	Asn	Pro 270	Asp	Gly	
gat Asp	gcc Ala	aag Lys 275	ccc Pro	tgg Trp	tgc Cys	cac His	gtg Val 280	ctg Leu	aag Lys	aac Asn	cgc Arg	agg Arg 285	ctg Leu	acg Thr	tgg Trp	864
gag Glu	tac Tyr 290	tgt Cys	gat Asp	gtg Val	ccc Pro	tcc ser 295	tgc Cys	tcc Ser	acc Thr	tgc Cys	ggc Gly 300	ctg Leu	aga Arg	cag Gln	tac Tyr	912
agc Ser 305	cag Gln	cct Pro	cag Gln	ttt Phe	cgc Arg 310	atc Ile	aaa Lys	gga Gly	ggg Gly	ctc Leu 315	ttc Phe	gcc Ala	gac Asp	atc Ile	gcc Ala 320	960
tcc Ser	cac His	ccc Pro	tgg Trp	cag Gln 325	gct Ala	gcc Ala	atc Ile	ttt Phe	gcc Ala 330	aag Lys	cac His	agg Arg	agg Arg	tcg Ser 335	ccc Pro	1008
gga Gly	gag Glu	cgg Arg	ttc Phe 340	ctg Leu	tgc Cys	ggg Gly	ggc Gly	ata Ile 345	ctc Leu	atc Ile	agc Ser	tcc Ser	tgc Cys 350	tgg Trp	att Ile	1056
ctc Leu	tct Ser	gcc Ala 355	gcc Ala	cac His	tgc Cys	ttc Phe	cag Gln 360	gag Glu	agg Arg	ttt Phe	ccg Pro	ccc Pro 365	сас His	cac His	ctg Leu	1104
acg Thr	gtg Val 370	atc Ile	ttg Leu	ggc Gly	aga Arg	aca Thr 375	tac Tyr	cgg Arg	gtg Val	gtc Val	cct Pro 380	ggc Gly	gag Glu	gag Glu	gag Glu	1152
cag Gln 385	aaa Lys	ttt Phe	gaa Glu	gtc Val	gaa Glu 390	aaa Lys	tac Tyr	att Ile	gtc Val	cat His 395	aag Lys	gaa Glu	ttc Phe	gat Asp	gat Asp 400	1200
gac Asp	act Thr	tac Tyr	gac Asp	aat Asn 405	gac Asp	att Ile	gcg Ala	ctg Leu	ctg Leu 410	cag Gln	ctg Leu	aaa Lys	tcg Ser	gat Asp 415	tcg Ser	1248
tcc Ser	cgc Arg	tgt Cys	gcc Ala 420	cag Gln	gag Glu	agc Ser	agc Ser	gtg Val 425	gtc Val	cgc Arg	act Thr	gtg Val	tgc Cys 430	ctt Leu	ccc Pro	1296
ccg Pro	gcg Ala	gac Asp 435	ctg Leu	cag Gln	ctg Leu	ccg Pro	gac Asp 440	tgg Trp	acg Thr	gag Glu	tgt Cys	gag Glu 445	ctc Leu	tcc Ser	ggc Gly	1344
tac Tyr	ggc Gly 450	aag Lys	cat His	gag Glu	gcc Ala	ttg Leu 455	tct Ser	cct Pro	ttc Phe	tat Tyr	tcg Ser 460	gag Glu	cgg Arg	ctg Leu	aag Lys	1392
gag Glu 465	gct Ala	cat His	gtc Val	aga Arg	ctg Leu 470	tac Tyr	cca Pro	tcc Ser	agc Ser	cgc Arg 475	tgc Cys	aca Thr	tca Ser	caa Gln	cat His 480	1440
tta Leu	ctt Leu	aac Asn	aga Arg	aca Thr 485	gtc Val	acc Thr	gac Asp	aac Asn	atg Met 490	ctg Leu	tgt Cys	gct Ala	gga Gly	gac Asp 495	act Thr	1488
cgg	agc	ggc	ggg	ссс	cag	gca	aac	ttg	cac	gac	gcc	tgc	cag	ggc	gat	1536

```
Arg Ser Gly Gly Pro Gln Ala Asn Leu His Asp Ala Cys Gln Gly Asp
tcg gga ggc ccc ctg gtg tgt ctg aac gat ggc cgc atg act ttg gtg
Ser Gly Gly Pro Leu Val Cys Leu Asn Asp Gly Arg Met Thr Leu Val
515 520 525
                                                                                   1584
ggc atc atc agc tgg ggc ctg ggc tgt gga cag aag gat gtc ccg ggt
Gly Ile Ile Ser Trp Gly Leu Gly Cys Gly Gln Lys Asp Val Pro Gly
530 540
                                                                                   1632
gtg tac acc aag gtt acc aac tac cta gac tgg att cgt gac aac atg
                                                                                   1680
Val Tyr Thr Lys Val Thr Asn Tyr Leu Asp Trp Ile Arg Asp Asn Met
                       550
cga ccg
                                                                                   1686
Arg Pro
<210>
         12
         1158
<211>
<212>
         DNA
<213>
         Artificial Sequence
<220>
<221>
         sig_peptide
<222>
         (1) ... (69)
<223>
         Signal sequence of the human surfactant protein B
<220>
         CDS
<221>
<222>
         (76) \dots (312)
<223>
         Coding sequence of the mature human surfactant protein B
<220>
<221>
         CDS
<222>
         (313) \dots (1140)
<223>
         Coding sequence of human low mw two-chain urokinase-plasminogen
         activator
<220>
<221>
         CDS
<222>
         (1141) \dots (1158)
<223>
         Hexahistidine affinity tag
<400>
         12
atg gct gag tca cac ctg ctg cag tgg ctg ctg ctg ctg ccc acg
                                                                                   48
Met Ala Glu Ser His Leu Leu Gln Trp Leu Leu Leu Leu Pro Thr
ctc tgt ggc cca ggc act gct gcc tgg ttc ccc att cct ctc ccc tat
                                                                                   96
Leu Cys Gly Pro Gly Thr Ala Ala Trp Phe Pro Ile Pro Leu Pro Tyr
                                                                                   144
tgc tgg ctc tgc agg gct ctg atc aag cgg atc caa gcc atg att ccc
Cys Trp Leu Cys Arg Ala Leu Ile Lys Arg Ile Gln Ala Met Ile Pro
          35
aag ggt gcg cta gct gtg gca gtg gcc cag gtg tgc cgc gtg gta cct
                                                                                   192
```

Lys	G]y 50	Ala	Leu	Ala	٧al	Ala 55	٧a٦	Ala	Gln	٧a٦	Cys 60	Arg	۷al	Val	Pro	
ctg Leu 65	gtg Val	gcg Ala	ggc Gly	ggc Gly	atc Ile 70	tgc Cys	cag Gln	tgc Cys	ctg Leu	gct Ala 75	gag Glu	cgc Arg	tac Tyr	tcc Ser	gtc val 80	240
atc Ile	ctg Leu	ctc Leu	gac Asp	acg Thr 85	ctg Leu	ctg Leu	ggc Gly	cgc Arg	atg Met 90	ctg Leu	ccc Pro	cag Gln	ctg Leu	gtc Val 95	tgc Cys	288
				cgg Arg												336
tta Leu	aaa Lys	ttt Phe 115	cag Gln	tgt Cys	ggc Gly	caa Gln	aag Lys 120	act Thr	ctg Leu	agg Arg	ccc Pro	cgc Arg 125	ttt Phe	aag Lys	att Ile	384
att Ile	ggg Gly 130	gga Gly	gaa Glu	ttc Phe	acc Thr	acc Thr 135	atc Ile	gag Glu	aac Asn	cag Gln	ccc Pro 140	tgg Trp	ttt Phe	gcg Ala	gcc Ala	432
atc Ile 145	tac Tyr	agg Arg	agg Arg	cac His	cgg Arg 150	ggg Gly	ggc Gly	tct Ser	gtc Val	acc Thr 155	tac Tyr	gtg Val	tgt Cys	gga Gly	ggc Gly 160	480
agc Ser	ctc Leu	atc Ile	agc Ser	cct Pro 165	tgc Cys	tgg Trp	gtg Val	atc Ile	agc Ser 170	gcc Ala	aca Thr	cac His	tgc Cys	ttc Phe 175	att Ile	528
gat Asp	tac Tyr	cca Pro	aag Lys 180	aag Lys	gag Glu	gac Asp	tac Tyr	atc Ile 185	gtc Val	tac Tyr	ctg Leu	ggt Gly	cgc Arg 190	tca Ser	agg Arg	576
ctt Leu	aac Asn	tcc Ser 195	aac Asn	acg Thr	caa Gln	ggg Gly	gag Glu 200	atg Met	aag Lys	ttt Phe	gag Glu	gtg Val 205	gaa Glu	aac Asn	ctc Leu	624
				gac Asp												672
att Ile 225	gcc Ala	ttg Leu	ctg Leu	aag Lys	atc Ile 230	cgt Arg	tcc Ser	aag Lys	gag Glu	ggc Gly 235	agg Arg	tgt Cys	gcg Ala	cag Gln	cca Pro 240	720
tcc Ser	cgg Arg	act Thr	ata Ile	cag Gln 245	acc Thr	atc Ile	tgc Cys	ctg Leu	ccc Pro 250	tcg Ser	atg Met	tat Tyr	aac Asn	gat Asp 255	ccc Pro	768
cag Gln	ttt Phe	ggc Gly	aca Thr 260	agc Ser	tgt Cys	gag Glu	atc Ile	act Thr 265	ggc Gly	ttt Phe	gga Gly	aaa Lys	gag Glu 270	aat Asn	tct Ser	816
acc Thr	gac Asp	tat Tyr 275	ctc Leu	tat Tyr	ccg Pro	gag Glu	cag Gln 280	ctg Leu	aaa Lys	atg Met	act Thr	gtt Val 285	gtg Val	aag Lys	ctg Leu	864
att	tcc	cac	cgg	gag	tgt	cag	cag	ссс	cac	tac	tac	ggc	tct	gaa	gtc	912

```
Ile Ser His Arg Glu Cys Gln Gln Pro His Tyr Tyr Gly Ser Glu Val
     290
                              295
acc acc aaa atg ctg tgt gct gct gac cca cag tgg aaa aca gat tcc
                                                                                          960
Thr Thr Lys Met Leu Cys Ala Ala Asp Pro Glin Trp Lys Thr Asp Ser
                                                  315
tgc cag gga gac tca ggg gga ccc ctc gtc tgt tcc ctc caa ggc cgc
Cys Gln Gly Asp Ser Gly Gly Pro Leu Val Cys Ser Leu Gln Gly Arg
325 330 335
                                                                                          1008
atg act ttg act gga att gtg agc tgg ggc cgt gga tgt gcc ctg aag Met Thr Leu Thr Gly Ile Val Ser Trp Gly Arg Gly Cys Ala Leu Lys 340 345 350
                                                                                          1056
gac aag cca ggc gtc tac acg aga gtc tca cac ttc tta ccc tgg atc Asp Lys Pro Gly Val Tyr Thr Arg Val Ser His Phe Leu Pro Trp Ile
                                                                                          1104
cgc agt cac acc aag gaa gag aat ggc ctg gcc ctc cat cat cat cat
                                                                                          1152
Arg Ser His Thr Lys Glu Glm Asn Gly Leu Ala Leu His His His His
cat cat
                                                                                          1158
His His
385
<210>
          13
<211>
          1149
<212>
          DNA
<213>
          Artificial Sequence
<220>
         sig_peptide
(1) ... (60)
<221>
<222>
          Signal sequence of the human urokinase plasminogen activator
<220>
<221>
          CDS
<222>
          (67) ... (894)
          Coding sequence of human low mw two-chain urokinase-plasminogen
<223>
<220>
<221>
          CDS
<222>
          (895) \dots (1131)
<223>
          Coding sequence of the mature human surfactant protein B
<220>
<221>
          CDS
<222>
          (1132) \dots (1149)
<223>
          Hexahistidine affinity tag
<400>
          13
atg aga gcc ctg ctg gcg cgc ctg ctt ctc tgc gtc ctg gtc gtg agc
                                                                                         48
Met Arg Ala Leu Leu Ala Arg Leu Leu Leu Cys Val Leu Val Val Ser
```

gac Asp	tcc Ser	aaa Lys	ggc Gly 20	agc Ser	aat Asn	aag Lys	ccc Pro	tcc Ser 25	tct Ser	cct Pro	cca Pro	gaa Glu	gaa Glu 30	tta Leu	aaa Lys	96
ttt Phe	cag Gln	tgt Cys 35	ggc Gly	caa Gln	aag Lys	act Thr	ctg Leu 40	agg Arg	ccc Pro	cgc Arg	ttt Phe	aag Lys 45	att Ile	att Ile	ggg Gly	144
gga Gly	gaa Glu 50	ttc Phe	acc Thr	acc Thr	atc Ile	gag Glu 55	aac Asn	cag Gln	ccc Pro	tgg Trp	ttt Phe 60	gcg Ala	gcc Ala	atc Ile	tac Tyr	192
agg Arg 65	agg Arg	cac His	cgg Arg	ggg Gly	ggc Gly 70	tct Ser	gtc Val	acc Thr	tac Tyr	gtg val 75	tgt Cys	gga Gly	ggc Gly	agc Ser	ctc Leu 80	240
atc Ile	agc Ser	cct Pro	tgc Cys	tgg Trp 85	gtg Val	atc Ile	agc Ser	gcc Ala	aca Thr 90	cac His	tgc Cys	ttc Phe	att Ile	gat Asp 95	tac Tyr	288
cca Pro	aag Lys	aag Lys	gag Glu 100	gac Asp	tac Tyr	atc Ile	gtc Val	tac Tyr 105	ctg Leu	ggt Gly	cgc Arg	tca Ser	agg Arg 110	ctt Leu	aac Asn	336
tcc Ser	aac Asn	acg Thr 115	caa Gln	ggg Gly	gag Glu	atg Met	aag Lys 120	ttt Phe	gag Glu	gtg Val	gaa Glu	aac Asn 125	ctc Leu	atc Ile	cta Leu	384
cac His	aag Lys 130	gac Asp	tac Tyr	agc Ser	gct Ala	gac Asp 135	acg Thr	ctt Leu	gct Ala	cac His	cac His 140	aac Asn	gac Asp	att Ile	gcc Ala	432
ttg Leu 145	ctg Leu	aag Lys	atc Ile	cgt Arg	tcc Ser 150	aag Lys	gag Glu	ggc Gly	agg Arg	tgt Cys 155	gcg Ala	cag Gln	cca Pro	tcc Ser	cgg Arg 160	480
act Thr	ata Ile	cag Gln	acc Thr	atc Ile 165	tgc Cys	ctg Leu	ccc Pro	tcg Ser	atg Met 170	tat Tyr	aac Asn	gat Asp	ccc Pro	cag Gln 175	ttt Phe	528
ggc Gly	aca Thr	agc Ser	tgt Cys 180	gag Glu	atc Ile	act Thr	ggc Gly	ttt Phe 185	gga Gly	aaa Lys	gag Glu	aat Asn	tct Ser 190	acc Thr	gac Asp	576
tat Tyr	ctc Leu	tat Tyr 195	ccg Pro	gag Glu	cag Gln	ctg Leu	aaa Lys 200	atg Met	act Thr	gtt Val	gtg Val	aag Lys 205	ctg Leu	att Ile	tcc Ser	624
cac His	cgg Arg 210	gag Glu	tgt Cys	cag Gln	cag Gln	ccc Pro 215	cac His	tac Tyr	tac Tyr	ggc Gly	tct Ser 220	gaa Glu	gtc Val	acc Thr	acc Thr	672
aaa Lys 225	atg Met	ctg Leu	tgt Cys	gct Ala	gct Ala 230	gac Asp	cca Pro	cag Gln	tgg Trp	aaa Lys 235	aca Thr	gat Asp	tcc Ser	tgc Cys	cag Gln 240	720
	gac Asp															768

```
ttg act gga att gtg agc tgg ggc cgt gga tgt gcc ctg aag gac aag
Leu Thr Gly Ile Val Ser Trp Gly Arg Gly Cys Ala Leu Lys Asp Lys
260 265 270
                                                                                                          816
cca ggc gtc tac acg aga gtc tca cac ttc tta ccc tgg atc cgc agt
Pro Gly Val Tyr Thr Arg Val Ser His Phe Leu Pro Trp Ile Arg Ser
                                                                                                          864
                                         280
cac acc aag gaa gag aat ggc ctg gcc ctc ttc ccc att cct ctc ccc
His Thr Lys Glu Gln Asn Gly Leu Ala Leu Phe Pro Ile Pro Leu Pro
290 295 300
                                                                                                          912
tat tgc tgg ctc tgc agg gct ctg atc aag cgg atc caa gcc atg att
                                                                                                          960
Tyr Cys Trp Leu Cys Arg Ala Leu Ile Lys Arg Ile Gln Ala Met Ile
305 310 315 320
ccc aag ggt gcg cta gct gtg gca gtg gcc cag gtg tgc cgc gtg gta
Pro Lys Gly Ala Leu Ala Val Ala Val Ala Gln Val Cys Arg Val Val
                                                                                                          1008
cct ctg gtg gcg ggc atc tgc cag tgc ctg gct gag cgc tac tcc
Pro Leu Val Ala Gly Gly Ile Cys Gln Cys Leu Ala Glu Arg Tyr Ser
340 345 350
                                                                                                          1056
gtc atc ctg ctc gac acg ctg ctg ggc cgc atg ctg ccc cag ctg gtc
                                                                                                          1104
Val Ile Leu Leu Asp Thr Leu Leu Gly Arg Met Leu Pro Gln Leu Val
                                         360
tgc cgc ctc gtc ctc cgg tgc tcc atg cat cat cat cat cat cat cys Arg Leu Val Leu Arg Cys Ser Met His His His His His His 370 375 380
                                                                                                         1149
<210>
            14
            381
<211>
<212>
           PRT
<213>
           Homo sapiens
<220>
<221>
           PEPTIDE
<222>
            (1) \ldots (381)
            Surfactant protein B precursor
<400>
           14
Met Ala Glu Ser His Leu Leu Gln Trp Leu Leu Leu Leu Leu Pro Thr
1 10 15
Leu Cys Gly Pro Gly Thr Ala Ala Trp Thr Thr Ser Ser Leu Ala Cys
20 25 30
Ala Gln Gly Pro Glu Phe Trp Cys Gln Ser Leu Glu Gln Ala Leu Gln 35 40
Cys Arg Ala Leu Gly His Cys Leu Gln Glu Val Trp Gly His Val Gly
50 60
Ala Asp Asp Leu Cys Gln Glu Cys Glu Asp Ile Val His Ile Leu Asn 65 70 75 80
```

Lys Met Ala Lys Glu Ala Ile Phe Gln Asp Thr Met Arg Lys Phe Leu $85 \hspace{1cm} 90 \hspace{1cm} 95$ Glu Gln Glu Cys Asn Val Leu Pro Leu Lys Leu Leu Met Pro Gln Cys 100 105 110 Asn Gln Val Leu Asp Asp Tyr Phe Pro Leu Val Ile Asp Tyr Phe Gln 115 120 125 Asn Gln Thr Asp Ser Asn Gly Ile Cys Met His Leu Gly Leu Cys Lys 130 135 140 Ser Arg Gln Pro Glu Pro Glu Gln Glu Pro Gly Met Ser Asp Pro Leu 145 150 155 160 Pro Lys Pro Leu Arg Asp Pro Leu Pro Asp Pro Leu Leu Asp Lys Leu 165 170 175 Val Leu Pro Val Leu Pro Gly Ala Leu Gln Ala Arg Pro Gly Pro His 180 185 190 Thr Gln Asp Leu Ser Glu Gln Gln Phe Pro Ile Pro Leu Pro Tyr Cys 195 200 205 Trp Leu Cys Arg Ala Leu Ile Lys Arg Ile Gln Ala Met Ile Pro Lys 210 215 220 Gly Ala Leu Ala Val Ala Val Ala Gln Val Cys Arg Val Val Pro Leu 225 230 235 240 Val Ala Gly Gly Ile Cys Gln Cys Leu Ala Glu Arg Tyr Ser Val Ile 245 250 255 Leu Leu Asp Thr Leu Leu Gly Arg Met Leu Pro Gln Leu Val Cys Arg 260 265 270 Leu Val Leu Arg Cys Ser Met Asp Asp Ser Ala Gly Pro Arg Ser Pro 275 280 285 Thr Gly Glu Trp Leu Pro Arg Asp Ser Glu Cys His Leu Cys Met Ser 290 295 300 Val Thr Thr Gln Ala Gly Asn Ser Ser Glu Gln Ala Ile Pro Gln Ala 305 310 315 320 Met Leu Gln Ala Cys Val Gly Ser Trp Leu Asp Arg Glu Lys Cys Lys 325 330 335 Gln Phe Val Glu Gln His Thr Pro Gln Leu Leu Thr Leu Val Pro Arg 340 345 350 Gly Trp Asp Ala His Thr Thr Cys Gln Ala Leu Gly Val Cys Gly Thr 355 360 365 Met Ser Ser Pro Leu Gln Cys Ile His Ser Pro Asp Leu 370 375 380

<210> 15

```
<211>
         279
<212>
         PRT
<213>
         Homo sapiens
<220>
<221>
<222>
         PEPTIDE
         (1) ... (279)
         Surfactant protein B precursor lacking the C-terminal propeptide
<400>
         15
Met Ala Glu Ser His Leu Leu Gln Trp Leu Leu Leu Leu Leu Pro Thr
1 1 15
Leu Cys Gly Pro Gly Thr Ala Ala Trp Thr Thr Ser Ser Leu Ala Cys 20 25 30
Ala Gln Gly Pro Glu Phe Trp Cys Gln Ser Leu Glu Gln Ala Leu Gln 35 40 45
Cys Arg Ala Leu Gly His Cys Leu Gln Glu Val Trp Gly His Val Gly 50 60
Ala Asp Asp Leu Cys Gln Glu Cys Glu Asp Ile Val His Ile Leu Asn 65 70 75 80
Lys Met Ala Lys Glu Ala Ile Phe Gln Asp Thr Met Arg Lys Phe Leu
85 90 95
Glu Gln Glu Cys Asn Val Leu Pro Leu Lys Leu Leu Met Pro Gln Cys
100 105 110
Asn Gln Val Leu Asp Asp Tyr Phe Pro Leu Val Ile Asp Tyr Phe Gln 115 120 125
Asn Gln Thr Asp Ser Asn Gly Ile Cys Met His Leu Gly Leu Cys Lys 130 140
Ser Arg Gln Pro Glu Pro Glu Gln Glu Pro Gly Met Ser Asp Pro Leu
145 150 155 160
Pro Lys Pro Leu Arg Asp Pro Leu Pro Asp Pro Leu Leu Asp Lys Leu 165 170 175
Val Leu Pro Val Leu Pro Gly Ala Leu Gln Ala Arg Pro Gly Pro His
180 185 190
Thr Gln Asp Leu Ser Glu Gln Gln Phe Pro Ile Pro Leu Pro Tyr Cys
195 200 205
Trp Leu Cys Arg Ala Leu Ile Lys Arg Ile Gln Ala Met Ile Pro Lys
210 215 220
Gly Ala Leu Ala Val Ala Val Ala Gln Val Cys Arg Val Val Pro Leu
225 230 235 240
Val Ala Gly Gly Ile Cys Gln Cys Leu Ala Glu Arg Tyr Ser Val Ile
245 250 255
Leu Leu Asp Thr Leu Leu Gly Arg Met Leu Pro Gln Leu Val Cys Arg
```

```
Leu Val Leu Arg Cys Ser Met
        275
```

<210> 16 <211> 79

<212>

<213> Homo sapiens

<220>

<221> <222> **PEPTIDE**

(1) ... (79)

<223> Mature surfactant protein B

<400> 16

Phe Pro Ile Pro Leu Pro Tyr Cys Trp Leu Cys Arg Ala Leu Ile Lys 1 5 10 15

Arg Ile Gln Ala Met Ile Pro Lys Gly Ala Leu Ala Val Ala 20 25 30

Gln Val Cys Arg Val Val Pro Leu Val Ala Gly Gly Ile Cys Gln Cys 35 40 45

Leu Ala Glu Arg Tyr Ser Val Ile Leu Leu Asp Thr Leu Leu Gly Arg 50 55 60

Met Leu Pro Gln Leu Val Cys Arg Leu Val Leu Arg Cys Ser Met 65 70 75

<210> 17

<211> 431

<212> PRT <213> Homo sapiens

<220>

<221> **PEPTIDE**

<222> $(1) \dots (431)$

<223> Single-chain urokinase-plasminogen activator

<400>

Met Arg Ala Leu Leu Ala Arg Leu Leu Cys Val Leu Val Val Ser 1 5 10 15

Asp Ser Lys Gly Ser Asn Glu Leu His Gln Val Pro Ser Asn Cys Asp 20 25 30

Cys Leu Asn Gly Gly Thr Cys Val Ser Asn Lys Tyr Phe Ser Asn Ile 35 40 45

His Trp Cys Asn Cys Pro Lys Lys Phe Gly Gly Gln His Cys Glu Ile 50 60

Asp Lys Ser Lys Thr Cys Tyr Glu Gly Asn Gly His Phe Tyr Arg Gly

Lys Ala Ser Thr Asp Thr Met Gly Arg Pro Cys Leu Pro Trp Asn Ser 85 90 95 Ala Thr Val Leu Gln Gln Thr Tyr His Ala His Arg Ser Asp Ala Leu 100 105 110 Gln Leu Gly Leu Gly Lys His Asn Tyr Cys Arg Asn Pro Asp Asn Arg 115 120 125 Arg Arg Pro Trp Cys Tyr Val Gln Val Gly Leu Lys Pro Leu Val Gln 130 135 140 Glu Cys Met Val His Asp Cys Ala Asp Gly Lys Lys Pro Ser Ser Pro 145 150 155 160 Pro Glu Glu Leu Lys Phe Gln Cys Gly Gln Lys Thr Leu Arg Pro Arg 165 170 175 Phe Lys Ile Ile Gly Gly Glu Phe Thr Thr Ile Glu Asn Gln Pro Trp 180 185 190 Phe Ala Ala Ile Tyr Arg Arg His Arg Gly Gly Ser Val Thr Tyr Val 195 200 205 Cys Gly Gly Ser Leu Ile Ser Pro Cys Trp Val Ile Ser Ala Thr His 210 215 220 Cys Phe Ile Asp Tyr Pro Lys Lys Glu Asp Tyr Ile Val Tyr Leu Gly 235 230 240 Arg Ser Arg Leu Asn Ser Asn Thr Gln Gly Glu Met Lys Phe Glu Val 245 250 255 Glu Asn Leu Ile Leu His Lys Asp Tyr Ser Ala Asp Thr Leu Ala His 260 265 270 His Asn Asp Ile Ala Leu Leu Lys Ile Arg Ser Lys Glu Gly Arg Cys 275 280 285 Ala Gln Pro Ser Arg Thr Ile Gln Thr Ile Cys Leu Pro Ser Met Tyr 290 295 300 Asn Asp Pro Gln Phe Gly Thr Ser Cys Glu Ile Thr Gly Phe Gly Lys 305 310 315 Glu Asn Ser Thr Asp Tyr Leu Tyr Pro Glu Gln Leu Lys Met Thr Val 325 330 335 Val Lys Leu Ile Ser His Arg Glu Cys Gln Gln Pro His Tyr Tyr Gly 340 345 350 Ser Glu Val Thr Thr Lys Met Leu Cys Ala Ala Asp Pro Gln Trp Lys 355 360 365 Thr Asp Ser Cys Gln Gly Asp Ser Gly Gly Pro Leu Val Cys Ser Leu 370 380 Gln Gly Arg Met Thr Leu Thr Gly Ile Val Ser Trp Gly Arg Gly Cys

385 390 395 400

Ala Leu Lys Asp Lys Pro Gly Val Tyr Thr Arg Val Ser His Phe Leu 405 410 415

Pro Trp Ile Arg Ser His Thr Lys Glu Gln Asn Gly Leu Ala Leu 420 425 430

<210> 18 <211> 276

<212> PRT

<213> Homo sapiens

<220>

<221> PEPTIDE

<222> (1) ... (276)

<223> Low molecular weight two-chain urokinase-plasminogen activator

<400> 18

Lys Pro Ser Ser Pro Pro Glu Glu Leu Lys Phe Gln Cys Gly Gln Lys
1 10 15

Thr Leu Arg Pro Arg Phe Lys Ile Ile Gly Gly Glu Phe Thr Thr Ile 20 25 30

Glu Asn Gln Pro Trp Phe Ala Ala Ile Tyr Arg Arg His Arg Gly Gly 35 40 45

Ser Val Thr Tyr Val Cys Gly Gly Ser Leu Ile Ser Pro Cys Trp Val 50 60

Ile Ser Ala Thr His Cys Phe Ile Asp Tyr Pro Lys Lys Glu Asp Tyr 65 70 75 80

Ile Val Tyr Leu Gly Arg Ser Arg Leu Asn Ser Asn Thr Gln Gly Glu 85 90 95

Met Lys Phe Glu Val Glu Asn Leu Ile Leu His Lys Asp Tyr Ser Ala 100 105 110

Asp Thr Leu Ala His His Asn Asp Ile Ala Leu Leu Lys Ile Arg Ser 115 120 125

Lys Glu Gly Arg Cys Ala Gln Pro Ser Arg Thr Ile Gln Thr Ile Cys 130 135 140

Leu Pro Ser Met Tyr Asn Asp Pro Gln Phe Gly Thr Ser Cys Glu Ile 145 150 155 160

Thr Gly Phe Gly Lys Glu Asn Ser Thr Asp Tyr Leu Tyr Pro Glu Gln
165 170 175

Leu Lys Met Thr Val Val Lys Leu Ile Ser His Arg Glu Cys Gln Gln 180 185 190

Pro His Tyr Tyr Gly Ser Glu Val Thr Thr Lys Met Leu Cys Ala Ala 195 200 205

```
Asp Pro Gln Trp Lys Thr Asp Ser Cys Gln Gly Asp Ser Gly Gly Pro 210 220
Leu Val Cys Ser Leu Gln Gly Arg Met Thr Leu Thr Gly Ile Val Ser
225 230 235 240
Trp Gly Arg Gly Cys Ala Leu Lys Asp Lys Pro Gly Val Tyr Thr Arg 245 250 255
Val Ser His Phe Leu Pro Trp Ile Arg Ser His Thr Lys Glu Gln Asn 260 270
Gly Leu Ala Leu
         275
<210>
         19
<211>
         557
<212>
         PRT
<213>
         Artificial Sequence
<220>
<221>
         PEPTIDE
         (1) ... (279)
<222>
         Human surfactant protein B precursor lacking the C-terminal
         propeptide
<220>
<221>
         PEPTIDE
<222>
         (282)
                ... (577)
         Human low molecular weight two-chain urokinase-plasminogen activator
<223>
<400>
         19
Met Ala Glu Ser His Leu Leu Gln Trp Leu Leu Leu Leu Leu Pro Thr 1 5 10 15
Leu Cys Gly Pro Gly Thr Ala Ala Trp Thr Thr Ser Ser Leu Ala Cys
20 25 30
Ala Gln Gly Pro Glu Phe Trp Cys Gln Ser Leu Glu Gln Ala Leu Gln
35 40 45
Cys Arg Ala Leu Gly His Cys Leu Gln Glu Val Trp Gly His Val Gly 50 60
Ala Asp Asp Leu Cys Gln Glu Cys Glu Asp Ile Val His Ile Leu Asn 65 70 75 80
Lys Met Ala Lys Glu Ala Ile Phe Gln Asp Thr Met Arg Lys Phe Leu
85 90 95
Glu Gln Glu Cys Asn Val Leu Pro Leu Lys Leu Leu Met Pro Gln Cys
100 105 110
Asn Gln Val Leu Asp Asp Tyr Phe Pro Leu Val Ile Asp Tyr Phe Gln
115 120 125
Asn Gln Thr Asp Ser Asn Gly Ile Cys Met His Leu Gly Leu Cys Lys
130 135 140
```

Ser Arg Gln Pro Glu Pro Glu Gln Glu Pro Gly Met Ser Asp Pro Leu 145 150 155 160 Pro Lys Pro Leu Arg Asp Pro Leu Pro Asp Pro Leu Leu Asp Lys Leu 165 170 175 Val Leu Pro Val Leu Pro Gly Ala Leu Gln Ala Arg Pro Gly Pro His 180 185 190 Thr Gln Asp Leu Ser Glu Gln Gln Phe Pro Ile Pro Leu Pro Tyr Cys 200 205 Trp Leu Cys Arg Ala Leu Ile Lys Arg Ile Gln Ala Met Ile Pro Lys 210 215 220 Gly Ala Leu Ala Val Ala Val Ala Gln Val Cys Arg Val Val Pro Leu 225 230 235 240 Val Ala Gly Gly Ile Cys Gln Cys Leu Ala Glu Arg Tyr Ser Val Ile 245 250 255 Leu Leu Asp Thr Leu Leu Gly Arg Met Leu Pro Gln Leu Val Cys Arg 260 265 270 Leu Val Leu Arg Cys Ser Met Lys Leu Lys Pro Ser Ser Pro Pro Glu 275 280 285 Glu Leu Lys Phe Gln Cys Gly Gln Lys Thr Leu Arg Pro Arg Phe Lys 290 295 300 Ile Ile Gly Gly Glu Phe Thr Thr Ile Glu Asn Gln Pro Trp Phe Ala 305 310 315 320 Ala Ile Tyr Arg Arg His Arg Gly Gly Ser Val Thr Tyr Val Cys Gly 325 330 335 Gly Ser Leu Ile Ser Pro Cys Trp Val Ile Ser Ala Thr His Cys Phe 340 350 Ile Asp Tyr Pro Lys Lys Glu Asp Tyr Ile Val Tyr Leu Gly Arg Ser 355 360 365 Arg Leu Asn Ser Asn Thr Gln Gly Glu Met Lys Phe Glu Val Glu Asn 370 380 Leu Ile Leu His Lys Asp Tyr Ser Ala Asp Thr Leu Ala His His Asn 385 390 395 400 Asp Ile Ala Leu Leu Lys Ile Arg Ser Lys Glu Gly Arg Cys Ala Gln 405 410 415 Pro Ser Arg Thr Ile Gln Thr Ile Cys Leu Pro Ser Met Tyr Asn Asp 420 425 430 Pro Gln Phe Gly Thr Ser Cys Glu Ile Thr Gly Phe Gly Lys Glu Asn 435 440 445 Ser Thr Asp Tyr Leu Tyr Pro Glu Gln Leu Lys Met Thr Val Val Lys 450 455 460

```
Leu Ile Ser His Arg Glu Cys Gln Gln Pro His Tyr Tyr Gly Ser Glu
465 470 475 480
Val Thr Thr Lys Met Leu Cys Ala Ala Asp Pro Gln Trp Lys Thr Asp 485 490 495
Ser Cys Gln Gly Asp Ser Gly Gly Pro Leu Val Cys Ser Leu Gln Gly 500 510
Arg Met Thr Leu Thr Gly Ile Val Ser Trp Gly Arg Gly Cys Ala Leu 515 520 525
Lys Asp Lys Pro Gly Val Tyr Thr Arg Val Ser His Phe Leu Pro Trp
530 540
Ile Arg Ser His Thr Lys Glu Gln Asn Gly Leu Ala Leu
545 550 555
<210>
         20
         558
<211>
<212>
         PRT
<213>
         Artificial Sequence
<220>
<221>
         PEPTIDE
<222>
         (1) ... (279)
<223>
         Human surfactant protein B precursor lacking the C-terminal
         propeptide
<220>
<221>
         PEPTIDE
<222>
         (283) \dots (558)
<223>
         Human low molecular weight two-chain urokinase-plasminogen activator
<400>
         20
Met Ala Glu Ser His Leu Leu Gln Trp Leu Leu Leu Leu Leu Pro Thr
1 10 15
Leu Cys Gly Pro Gly Thr Ala Ala Trp Thr Thr Ser Ser Leu Ala Cys 20 25 30
Ala Gln Gly Pro Glu Phe Trp Cys Gln Ser Leu Glu Gln Ala Leu Gln 35 40 45
Cys Arg Ala Leu Gly His Cys Leu Gln Glu Val Trp Gly His Val Gly 50 60
Ala Asp Asp Leu Cys Gln Glu Cys Glu Asp Ile Val His Ile Leu Asn 65 70 75 80
Lys Met Ala Lys Glu Ala Ile Phe Gln Asp Thr Met Arg Lys Phe Leu
85 90 95
Glu Gln Glu Cys Asn Val Leu Pro Leu Lys Leu Leu Met Pro Gln Cys
100 105 110
Asn Gln Val Leu Asp Asp Tyr Phe Pro Leu Val Ile Asp Tyr Phe Gln
```

115 120 125

Asn Gln Thr Asp Ser Asn Gly Ile Cys Met His Leu Gly Leu Cys Lys 130 135 140 Ser Arg Gln Pro Glu Pro Glu Gln Glu Pro Gly Met Ser Asp Pro Leu 145 150 155 160 Pro Lys Pro Leu Arg Asp Pro Leu Pro Asp Pro Leu Leu Asp Lys Leu 165 170 175 Val Leu Pro Val Leu Pro Gly Ala Leu Gln Ala Arg Pro Gly Pro His 180 185 190 Thr Gln Asp Leu Ser Glu Gln Gln Phe Pro Ile Pro Leu Pro Tyr Cys 195 200 205 Trp Leu Cys Arg Ala Leu Ile Lys Arg Ile Gln Ala Met Ile Pro Lys 210 220 Gly Ala Leu Ala Val Ala Val Ala Gln Val Cys Arg Val Val Pro Leu 225 230 235 240 Val Ala Gly Gly Ile Cys Gln Cys Leu Ala Glu Arg Tyr Ser Val Ile 245 250 255 Leu Leu Asp Thr Leu Leu Gly Arg Met Leu Pro Gln Leu Val Cys Arg 260 265 270 Leu Val Leu Arg Cys Ser Met Gln Ile Ser Lys Pro Ser Ser Pro Pro 275 280 285 Glu Glu Leu Lys Phe Gln Cys Gly Gln Lys Thr Leu Arg Pro Arg Phe 290 295 300 Lys Ile Ile Gly Gly Glu Phe Thr Thr Ile Glu Asn Gln Pro Trp Phe 305 310 315 320 Ala Ala Ile Tyr Arg Arg His Arg Gly Gly Ser Val Thr Tyr Val Cys 325 330 335 Gly Gly Ser Leu Ile Ser Pro Cys Trp Val Ile Ser Ala Thr His Cys 340 350 Phe Ile Asp Tyr Pro Lys Lys Glu Asp Tyr Ile Val Tyr Leu Gly Arg 355 360 365 Ser Arg Leu Asn Ser Asn Thr Gln Gly Glu Met Lys Phe Glu Val Glu 370 375 380 Asn Leu Ile Leu His Lys Asp Tyr Ser Ala Asp Thr Leu Ala His His 385 390 395 400 Asn Asp Ile Ala Leu Leu Lys Ile Arg Ser Lys Glu Gly Arg Cys Ala 405 410 415 Gln Pro Ser Arg Thr Ile Gln Thr Ile Cys Leu Pro Ser Met Tyr Asn 420 430 Asp Pro Gln Phe Gly Thr Ser Cys Glu Ile Thr Gly Phe Gly Lys Glu

440 445

Asn Ser Thr Asp Tyr Leu Tyr Pro Glu Gln Leu Lys Met Thr Val Val 450 455 460 Lys Leu Ile Ser His Arg Glu Cys Gln Gln Pro His Tyr Tyr Gly Ser 465 470 475 480 Glu Val Thr Thr Lys Met Leu Cys Ala Ala Asp Pro Gln Trp Lys Thr 485 490 495 Asp Ser Cys Gln Gly Asp Ser Gly Gly Pro Leu Val Cys Ser Leu Gln 500 510 Gly Arg Met Thr Leu Thr Gly Ile Val Ser Trp Gly Arg Gly Cys Ala 515 520 525 Leu Lys Asp Lys Pro Gly Val Tyr Thr Arg Val Ser His Phe Leu Pro 530 540 Trp Ile Arg Ser His Thr Lys Glu Gln Asn Gly Leu Ala Leu 545 550 555

<210>

21 197 <211>

<212> **PRT**

<213> Homo sapiens

<220>

<221> **PEPTIDE**

<222> $(1) \dots (197)$

<223> Surfactant protein C precursor

<400> 21

Met Asp Val Gly Ser Lys Glu Val Leu Met Glu Ser Pro Pro Asp Tyr 1 5 10 15 Ser Ala Ala Pro Arg Gly Arg Phe Gly Ile Pro Cys Cys Pro Val His 20 25 30

Leu Lys Arg Leu Leu Ile Val Val Val Val Val Leu Ile Val Val Val 35 40 45

Val Ile Val Gly Ala Leu Leu Met Gly Leu His Met Ser Gln Lys His 50 55 60

Thr Glu Met Val Leu Glu Met Ser Ile Gly Ala Pro Glu Ala Gln Gln 65 70 75 80

Arg Leu Ala Leu Ser Glu His Leu Val Thr Thr Ala Thr Phe Ser Ile 85 90 95

Gly Ser Thr Gly Leu Val Val Tyr Asp Tyr Gln Gln Leu Leu Ile Ala 100 105 110

Tyr Lys Pro Ala Pro Gly Thr Cys Cys Tyr Ile Met Lys Ile Ala Pro 115 120 125

```
Glu Ser Ile Pro Ser Leu Glu Ala Leu Thr Arg Lys Val His Asn Phe
130 135 140
Gln Met Glu Cys Ser Leu Gln Ala Lys Pro Ala Val Pro Thr Ser Lys
145 150 155 160
Leu Gly Gln Ala Glu Gly Arg Asp Ala Gly Ser Ala Pro Ser Gly Gly
165 170 175
Asp Pro Ala Phe Leu Gly Met Ala Val Ser Thr Leu Cys Gly Glu Val
180 185 190
Pro Leu Tyr Tyr Ile
195
<210>
         22
<211>
         58
<212>
         PRT
         Homo sapiens
<213>
<220>
         PEPTIDE
<221>
<222>
         (1) \dots (58)
         Surfactant protein C precursor lacking the C-terminal
       propeptide
<400>
         22
Met Asp Val Gly Ser Lys Glu Val Leu Met Glu Ser Pro Pro Asp Tyr 1 5 10 15
Ser Ala Ala Pro Arg Gly Arg Phe Gly Ile Pro Cys Cys Pro Val His 20 \hspace{1cm} 25 \hspace{1cm} 30
Leu Lys Arg Leu Leu Ile Val Val Val Val Val Leu Ile Val Val 35 40 45
Val Ile Val Gly Ala Leu Leu Met Gly Leu
50 55
<210>
         23
         35
<211>
<212>
         PRT
         Homo sapiens
<213>
<220>
<221>
         PEPTIDE
<222>
         (1) \dots (35)
<223>
         Mature surfactant protein C
<400>
         23
Phe Gly Ile Pro Cys Cys Pro Val His Leu Lys Arg Leu Leu Ile Val 1 5 10 15
Val Val Val Val Leu Ile Val Val Ile Val Gly Ala Leu Leu
20 25 30
```

```
Met Gly Leu
<210>
         24
          562
<211>
<212>
         PRT
<213>
         Homo sapiens
<220>
<221>
         PEPTIDE
         (1) \dots (562)
         Tissue-plasminogen activator
<400>
Met Asp Ala Met Lys Arg Gly Leu Cys Cys Val Leu Leu Leu Cys Gly
10 15
Ala Val Phe Val Ser Pro Ser Gln Glu Ile His Ala Arg Phe Arg Arg 20 25 30
Gly Ala Arg Ser Tyr Gln Val Ile Cys Arg Asp Glu Lys Thr Gln Met
35 40 45
Ile Tyr Gln Gln His Gln Ser Trp Leu Arg Pro Val Leu Arg Ser Asn 50 55 60
Arg Val Glu Tyr Cys Trp Cys Asn Ser Gly Arg Ala Gln Cys His Ser
65 70 75 80
Val Pro Val Lys Ser Cys Ser Glu Pro Arg Cys Phe Asn Gly Gly Thr
85 90 95
Cys Gln Gln Ala Leu Tyr Phe Ser Asp Phe Val Cys Gln Cys Pro Glu
100 105 110
Gly Phe Ala Gly Lys Cys Cys Glu Ile Asp Thr Arg Ala Thr Cys Tyr 115 120 125
Glu Asp Gln Gly Ile Ser Tyr Arg Gly Thr Trp Ser Thr Ala Glu Ser
130 135 140
Gly Ala Glu Cys Thr Asn Trp Asn Ser Ser Ala Leu Ala Gln Lys Pro
145 150 155 160
Tyr Ser Gly Arg Arg Pro Asp Ala Ile Arg Leu Gly Leu Gly Asn His
165 170 175
Asn Tyr Cys Arg Asn Pro Asp Arg Asp Ser Lys Pro Trp Cys Tyr Val
180 185 190
Phe Lys Ala Gly Lys Tyr Ser Ser Glu Phe Cys Ser Thr Pro Ala Cys 200 205
Ser Glu Gly Asn Ser Asp Cys Tyr Phe Gly Asn Gly Ser Ala Tyr Arg
210 215 220
Gly Thr His Ser Leu Thr Glu Ser Gly Ala Ser Cys Leu Pro Trp Asn 235 240
```

Ser Met Ile Leu Ile Gly Lys Val Tyr Thr Ala Gln Asn Pro Ser Ala 245 250 255 Gln Ala Leu Gly Leu Gly Lys His Asn Tyr Cys Arg Asn Pro Asp Gly 260 265 270 Asp Ala Lys Pro Trp Cys His Val Leu Lys Asn Arg Arg Leu Thr Trp 275 280 285 Glu Tyr Cys Asp Val Pro Ser Cys Ser Thr Cys Gly Leu Arg Gln Tyr 290 295 300 Ser Gln Pro Gln Phe Arg Ile Lys Gly Gly Leu Phe Ala Asp Ile Ala 305 310 315 320 Ser His Pro Trp Gln Ala Ala Ile Phe Ala Lys His Arg Arg Ser Pro 325 330 335 Gly Glu Arg Phe Leu Cys Gly Gly Ile Leu Ile Ser Ser Cys Trp Ile 340 345 350 Leu Ser Ala Ala His Cys Phe Gln Glu Arg Phe Pro Pro His His Leu 355 360 365 Thr Val Ile Leu Gly Arg Thr Tyr Arg Val Val Pro Gly Glu Glu Glu 370 380 Gln Lys Phe Glu Val Glu Lys Tyr Ile Val His Lys Glu Phe Asp Asp 385 390 395 400 Asp Thr Tyr Asp Asn Asp Ile Ala Leu Leu Gln Leu Lys Ser Asp Ser 405 410 415 Ser Arg Cys Ala Gln Glu Ser Ser Val Val Arg Thr Val Cys Leu Pro 420 425 430 Pro Ala Asp Leu Gln Leu Pro Asp Trp Thr Glu Cys Glu Leu Ser Gly 435 440 445 Tyr Gly Lys His Glu Ala Leu Ser Pro Phe Tyr Ser Glu Arg Leu Lys 450 460 Glu Ala His Val Arg Leu Tyr Pro Ser Ser Arg Cys Thr Ser Gln His 465 470 475 480 Leu Leu Asn Arg Thr Val Thr Asp Asn Met Leu Cys Ala Gly Asp Thr 485 490 495 Arg Ser Gly Gly Pro Gln Ala Asn Leu His Asp Ala Cys Gln Gly Asp 500 505 510 Ser Gly Gly Pro Leu Val Cys Leu Asn Asp Gly Arg Met Thr Leu Val 515 520 525 Gly Ile Ile Ser Trp Gly Leu Gly Cys Gly Gln Lys Asp Val Pro Gly 530 540 Val Tyr Thr Lys Val Thr Asn Tyr Leu Asp Trp Ile Arg Asp Asn Met 545 550 555

```
Arg Pro
<210>
         25
         386
<211>
<212>
         PRT
<213>
         Artificial Sequence
<220>
         SIGNAL
<221>
<222>
         (1) ... (23)
<223>
         Signal sequence of the human surfactant protein B
<220>
<221>
         PEPTIDE
<222>
         (26) \dots (104)
<223>
         Mature human surfactant protein B
<220>
         PEPTIDE
<221>
<222>
         (105) ... (380)
<223>
         Human low molecular weight two-chain urokinase-plasminogen
         activator
<220>
<221>
         PEPTIDE
<222>
                   (386)
         (381) \dots
<223>
         Hexahistidine affinity tag
<400>
         25
Met Ala Glu Ser His Leu Leu Gln Trp Leu Leu Leu Leu Leu Pro Thr
Leu Cys Gly Pro Gly Thr Ala Ala Trp Phe Pro Ile Pro Leu Pro Tyr 20 25 30
Cys Trp Leu Cys Arg Ala Leu Ile Lys Arg Ile Gln Ala Met Ile Pro 35 40 45
Lys Gly Ala Leu Ala Val Ala Val Ala Gln Val Cys Arg Val Val Pro 50 60
Leu Val Ala Gly Gly Ile Cys Gln Cys Leu Ala Glu Arg Tyr Ser Val
65 70 75 80
Ile Leu Leu Asp Thr Leu Leu Gly Arg Met Leu Pro Gln Leu Val Cys 85 90 95
Arg Leu Val Leu Arg Cys Ser Met Lys Pro Ser Ser Pro Pro Glu Glu 100 105 110
Leu Lys Phe Gln Cys Gly Gln Lys Thr Leu Arg Pro Arg Phe Lys Ile
115 120 125
Ile Gly Gly Glu Phe Thr Thr Ile Glu Asn Gln Pro Trp Phe Ala Ala 130 135 140
```

Ile Tyr Arg Arg His Arg Gly Gly Ser Val Thr Tyr Val Cys Gly Gly

```
145
                        150
                                               155
                                                                       160
Ser Leu Ile Ser Pro Cys Trp Val Ile Ser Ala Thr His Cys Phe Ile
165 170 175
Asp Tyr Pro Lys Lys Glu Asp Tyr Ile Val Tyr Leu Gly Arg Ser Arg
180 185 190
Leu Asn Ser Asn Thr Gln Gly Glu Met Lys Phe Glu Val Glu Asn Leu
195 200 205
Ile Leu His Lys Asp Tyr Ser Ala Asp Thr Leu Ala His His Asn Asp 210 215 220
Ile Ala Leu Leu Lys Ile Arg Ser Lys Glu Gly Arg Cys Ala Gln Pro
225 230 235 240
Ser Arg Thr Ile Gln Thr Ile Cys Leu Pro Ser Met Tyr Asn Asp Pro 245 250 255
Gln Phe Gly Thr Ser Cys Glu Ile Thr Gly Phe Gly Lys Glu Asn Ser 260 265 270
Thr Asp Tyr Leu Tyr Pro Glu Gln Leu Lys Met Thr Val Val Lys Leu
275 280 285
Ile Ser His Arg Glu Cys Gln Gln Pro His Tyr Tyr Gly Ser Glu Val
290 295 300
Thr Thr Lys Met Leu Cys Ala Ala Asp Pro Gln Trp Lys Thr Asp Ser 310 315 320
Cys Gln Gly Asp Ser Gly Gly Pro Leu Val Cys Ser Leu Gln Gly Arg
325 330 335
Met Thr Leu Thr Gly Ile Val Ser Trp Gly Arg Gly Cys Ala Leu Lys
340 345 350
Asp Lys Pro Gly Val Tyr Thr Arg Val Ser His Phe Leu Pro Trp Ile 355 360 365
Arg Ser His Thr Lys Glu Gln Asn Gly Leu Ala Leu His His His 370 375 380
His His
385
<210>
         26
         383
<211>
<212>
<213>
         Artificial Sequence
<220>
         SIGNAL
<221>
<222>
         (1) ... (20)
<223>
         Signal sequence of the human urokinase plasminogen activator
```

<220> <221>

PEPTIDE

```
<222>
         (23) \dots (298)
         Human low molecular weight two-chain urokinase-plasminogen
       activator
<220>
<221>
         PEPTIDE
<222>
         (299) \dots (377)
<223>
         Coding sequence of the mature human surfactant protein B
<220>
<221>
         PEPTIDE
<222>
         (378) \dots (383)
<223>
         Hexahistidine affinity tag
<400>
Met Arg Ala Leu Leu Ala Arg Leu Leu Leu Cys Val Leu Val Val Ser 1 5 10 15
Asp Ser Lys Gly Ser Asn Lys Pro Ser Ser Pro Pro Glu Glu Leu Lys
               20
                                                             30
Phe Gln Cys Gly Gln Lys Thr Leu Arg Pro Arg Phe Lys Ile Ile Gly 35 40 45
Gly Glu Phe Thr Thr Ile Glu Asn Gln Pro Trp Phe Ala Ala Ile Tyr 50 55 60
Arg Arg His Arg Gly Gly Ser Val Thr Tyr Val Cys Gly Gly Ser Leu
65 70 75 80
Ile Ser Pro Cys Trp Val Ile Ser Ala Thr His Cys Phe Ile Asp Tyr
85 90 95
Pro Lys Lys Glu Asp Tyr Ile Val Tyr Leu Gly Arg Ser Arg Leu Asn
100 105 110
Ser Asn Thr Gln Gly Glu Met Lys Phe Glu Val Glu Asn Leu Ile Leu
115 120 125
His Lys Asp Tyr Ser Ala Asp Thr Leu Ala His His Asn Asp Ile Ala
130 135 140
Leu Leu Lys Ile Arg Ser Lys Glu Gly Arg Cys Ala Gln Pro Ser Arg
145 150 155 160
Thr Ile Gln Thr Ile Cys Leu Pro Ser Met Tyr Asn Asp Pro Gln Phe
165 170 175
Gly Thr Ser Cys Glu Ile Thr Gly Phe Gly Lys Glu Asn Ser Thr Asp
180 185 190
Tyr Leu Tyr Pro Glu Gln Leu Lys Met Thr Val Val Lys Leu Ile Ser
195 200 205
His Arg Glu Cys Gln Gln Pro His Tyr Tyr Gly Ser Glu Val Thr Thr 210 220
Lys Met Leu Cys Ala Ala Asp Pro Gln Trp Lys Thr Asp Ser Cys Gln
```